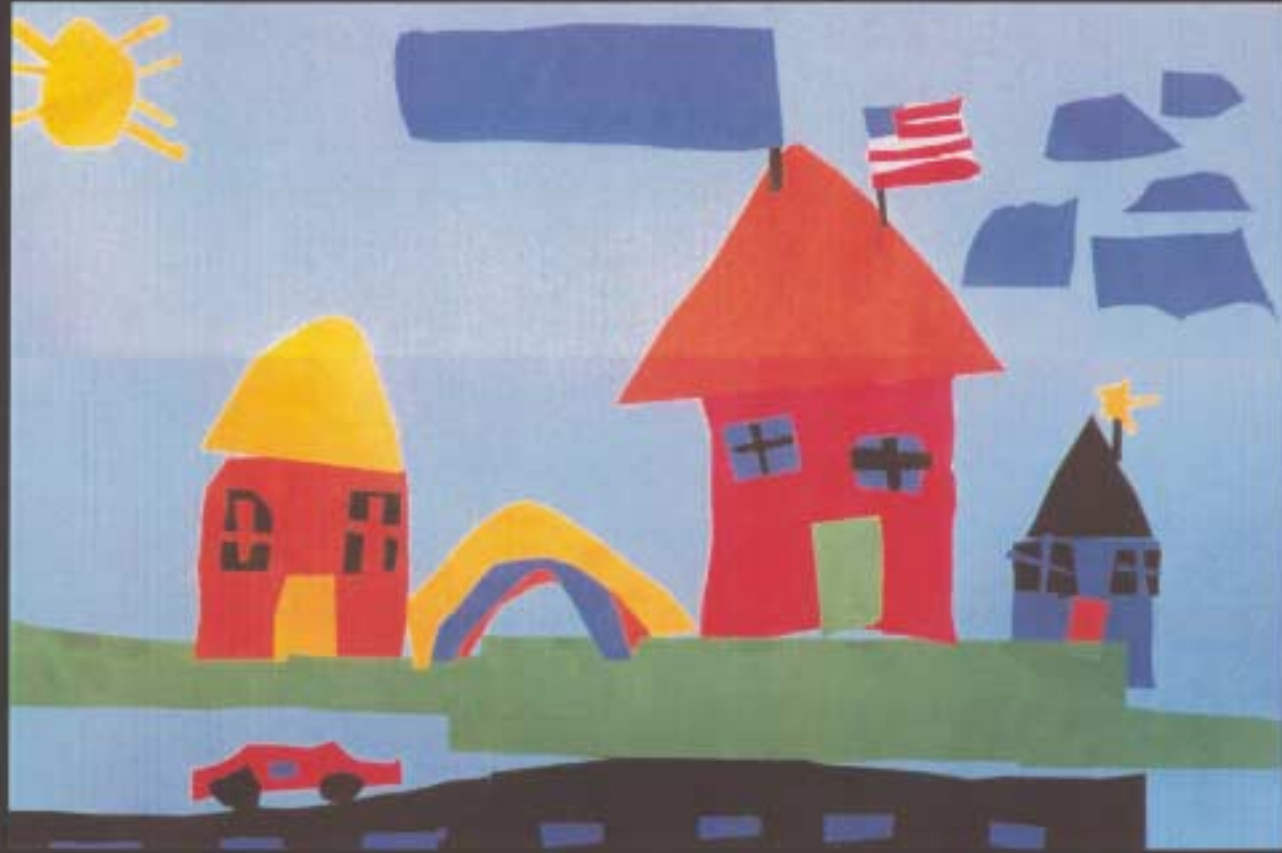


# MOTOR VEHICLE

## TOOL KIT



**A DATA GUIDE FOR  
MOTOR VEHICLE PROGRAMS**

**AUGUST 2002**

## ACKNOWLEDGEMENTS

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# INTRODUCTION

## Why data templates?

Data collection is not always an enjoyable task. You may have asked yourself many questions related to data collection such as: How much data do I have to wade through to accurately identify my community's problems? Which pieces of information are critical and which are "nice to know?" The Safe Community Data Tool Kit was created as a roadmap for YOU, the local practitioner. Through a systematic approach to answering a few basic questions related to injury type, population, severity, and location, you can identify which problems and target groups to focus on and the prevention programs that will be most effective in addressing the injury problems in your community.



The Data Tool Kit will ease data collection of these important pieces of information. The tool kit provides a simple, organized structure that allows some flexibility in the data template to meet your community's needs. Think of the templates as your personal blueprint for building a profile of the significant injury problems in your community. The data templates will help you rank fatal and non-fatal injuries; identify major contributing factors to a specific injury problem; identify problem locations and target groups; and compare costs associated with different types of injuries. By comparing traffic injuries to other injury problems, your Safe Community program can influence the public's perception of traffic injury as a priority issue and help turn their attention from the front-page events (such as a murder) to the injuries and deaths that occur on our roadways everyday. A comprehensive view of all injury problems may change the civic and community leaders' perspectives on the magnitude of motor vehicle crashes as a leading cause of death, hospitalizations, and health care costs.

The Data Tool Kit enables the process of data collection for community programs to be more practical, less confusing, and less intimidating. Only a handful of Safe Community programs have the available resources, in-house data expertise or manpower to undertake a massive data collection effort or establish a local injury surveillance program. The Data Tool Kit will guide your Safe Community Coalition toward identifying the gross injury problems in their community; selecting the appropriate countermeasure (intervention) programs; and allocating their injury prevention dollars and resources. It is very important to get your data keepers involved in your collection. This can make it much easier to access data and avoid other data issues.

## **Focusing on the holes in the ceiling using the "Big 3" concept**

Members of your community are important partners in bringing safety issues to your attention. It is your responsibility to determine if the particular safety issue that has attracted community and media attention is in fact a safety problem. In order to determine if the safety issue is a problem, you must collect data. For example, if it is brought to your attention that speeding is a safety issue in a neighborhood or if residents are insisting that some action be taken to address this concern, then you can do an observational survey to determine if this is indeed a problem that requires an intervention program. Some injury issues may be easier to act on depending on your community, and the accessible resources. No matter how important a safety issue may seem, you should maintain your focus on addressing the "Big 3" or top three injury problems in your community, and the Safe Community Data Tool Kit will help you do this. However, this does not eliminate the need to at times address other community problems.

It is easy for safety advocates to get distracted and focus on issues that receive a lot of media attention and community interest. Directing your time, energy and resources toward an issue that is a lower priority can be compared to having a hole in the ceiling in your home during a nonstop rainy season. You may make repairs to the windows or walls (working on non-priority injury issues) or mop up the water on the floor (treating the persons who have been injured); however, you are not addressing the cause of the water leakage into your house--- the hole in the ceiling! Take the time with this kit to ensure that your safety efforts are focused on the main injury problems in your community. It is very likely that your "hole in the ceiling" is a motor vehicle crash problem that is not receiving the attention that is deserved.



Although it would be nice to try to fix every problem in your community, unfortunately, with most Safe Community programs, resources are very limited. You must set priorities and address the most critical problems first. The strategy of focusing on the "Big 3" allows the data to guide you in the right direction. How do you do this? —by ranking the injury problems in your community. The Data Tool Kit utilizes the ranking system to focus your prevention efforts in the right direction. This helps you prioritize the key injury problems and target populations that should be addressed. Additionally, the data you collect can help you tailor your interventions by identifying the makeup of your target audience, available resources, and needs of the community. Finally, you can identify the community partners that should be recruited to address these issues and "fix the hole in the ceiling".

## What's in the tool kit?

The tool kit contains several sections, which correspond to the order of progression in your Safe Community's data collection efforts. The four major sections will help you answer the Who, What, Why, Where and How of the injury problems in your community. These sections include:

- Community Profile      Contributing Factors
- Injury Profile          Location/Mapping

At the beginning of each section, the following questions will be answered that will guide you through the entire process of gathering and interpreting the data you collect.

**Why you need to collect data.**

**What you need to collect.**

**How you can use it.**

**Your best sources for the information.**

It is important to note some general information about sources. You may be able to consolidate data collection steps by planning ahead of time. Before you start, you should know which sources of data can provide you with what information. **Table 1 is a general break down of the potential data sources and the type of data that can be retrieved from each. On this Table the data sources are ranked; the best data sources have a red star \* . On each template we have also identified your best source for data. If you cannot find the data from this source then try the other sources listed. Work with the data that is available in your community.** Before contacting any of these sources, review the data request list on this Table to determine what pieces of data you need from that specific source in order to complete your templates. This simple step can save you a lot of work and time in the long run!

On each of the templates there is a space provided titles, "What are your source(s) for this information?" To ensure consistency in your data over time, completely document in this section where you got your data. Include in this documentation contact name, telephone number, text reference, and/or web-site.

Once you have figured out what your community's "Big 3" problems are, then you can begin the process of collecting additional data. The good news --- this comprehensive data collection effort is an initial task to prioritize the injury problems in your community. After you've identified your specific target groups, injury problems and contributing factors, you will simply track (or monitor) the injury trends within that target group over time (at least once a year during the intervention phase). You do not have to continue to collect data on all injury problems, just the "Big 3".

## Where do you find the data?

**Table 1**

Ask for these data elements when you contact the data source. Your total collection sample should represent one year for each data source.

Data Source	Data Elements	Data Keepers
Community Profile  Census & Demographics Data	Population, age distribution, gender, ethnicity, socioeconomic characteristics (i.e., income, household size, educational level), geographic features	<b>National:</b> Electronic data is available from U.S. Bureau of the Census on CD-ROM (can be sorted by state/county/zip code level) or Internet ( <a href="http://www.census.gov">www.census.gov</a> ); <b>State:</b> Government (Department of Business/Commerce, request by mail or internet, ex. <a href="http://www.state.your.state.us">www.state.your.state.us</a> ; libraries; State Chamber of Commerce site (links to counties); <b>County:</b> Local Chamber of Commerce (request in person, by mail, or via internet, City Hall (Economic Planning & Development), Libraries
Office of Vital Statistics (Fatal Data)	Number of Resident deaths, age, gender, race, zip code of residence and injury classification	<b>State:</b> Government, Department of Health, by mail or internet, <a href="http://www.state.your.state.us">www.state.your.state.us</a> ; initials.us; <b>County:</b> Department of Health, Medical Examiner's Office



## Where do you find the data?

**Table 1 continued.**

Crash Reports	Number of fatal and non-fatal injuries, type of crash, crash location, contributing factors, driver/passenger/rider/ped identifiers and actions, and use of safety devices	<b>National:</b> Fatality Analysis Reporting System (FARS) by internet <a href="http://www-fars.idinc.com">www-fars.idinc.com</a> <b>State:</b> Government (Department of Transportation, <a href="http://www.dot.state.your.state's.initials.us">www.dot.state.your.state's.initials.us</a> ); <b>County:</b> Law Enforcement agencies, Traffic Engineering
Pre-Hospital Emergency Medical Services Reports	Date, time, location, age, gender, race, mechanism of injury, type of injury, protective equipment/restraints, facility identifiers, destination, charges	<b>State:</b> Government, Emergency Medical Services <b>County:</b> Emergency Medical Service Agencies
Hospital Treated Injury Reports (Emergency Department, Inpatient, Outpatient)	Date, time, age, gender, race, E-code, type of injury, zip code of residence, disposition/discharge status, charges, facility identifiers	<b>State:</b> Government (Department of Health) for Hospital Discharge files (Inpatient Medical Records by County); Registries (Trauma, Spinal Cord, Head Injury, Burns); <b>County:</b> Emergency department records, Medical records from outpatient ambulatory care facilities and Health Maintenance Organizations
<b>Contributing Factors</b>		
Police Reports	Number of fatal and non-fatal injuries, type of crash, crash location, contributing factors, driver/passenger/rider/ped identifiers and actions, and use of safety devices	<b>State:</b> Government, Department of Transportation, <a href="http://www.dot.state.your.state's.initials.us">www.dot.state.your.state's.initials.us</a> ; <b>County:</b> Law Enforcement Agencies, Traffic Engineering
<b>Medical Charges</b>		
Pre-hospital Emergency Medical Services care	Billing Data	<b>State:</b> Government, Emergency Medical Services
Cost for medical care	E-codes, Charges	<b>State:</b> Hospital Billing Data <b>County:</b> Hospital finance departments, Emergency department business office, Outpatient facility medical records



## Where do you find the data?

Table 1 continued.

Location/Mapping		
Location & mapping of fatal & non-fatal injuries	Injury location	<b>State:</b> Government, Department of Transportation, Emergency Medical Services; <b>County:</b> County/City Traffic Engineering, County/City Planners, EMS agencies
Emergency Department treated injuries	Zip code of origin of residence of injured	<b>County:</b> Emergency Department medical records

\*Adapted from Vira, C. 1999. The Data Smart Manual: Use and analysis of data for local highway and traffic safety programs.  
National Highway Traffic safety Administration.

## What are some “Real World” issues on data?

There are some issues associated with collecting and using data that are important to recognize and understand. The following items are important data issues.

**Access:** Some data will be easier to access than others. For example, mortality data are usually easier to get than morbidity data. It is important to keep in mind that if you cannot access data from one source you should always try another source; access to data will vary. The data templates will guide you in asking for data. Use the templates to make your data requests. The data sources in Table 1 will show you where to locate the “data keepers”. Getting these “data keepers” involved in your coalition can improve the level of access you will have to essential data.

**Timeliness:** There may be a lag time in the data you are able to access. It is not possible in most cases to get statewide data that is current. For example, 1999 FARS (Fatality Analysis Reporting System: [www-fars.nhtsa.dot.gov](http://www-fars.nhtsa.dot.gov)) data may not be available to you until 2001 due to the lag in reporting. However, you may be able to retrieve local data that is up to date. The most current data you can find should be used as your baseline data prior to initiating your Safe Communities initiatives.

**Confidentiality:** State laws on the confidentiality of hospital, police, and other official records vary. Anyone starting to collect data should make sure to investigate state laws and regulations concerning confidentiality. Hospitals, trauma centers, and other institutions are often concerned about the confidentiality of their files.

**Format:** The data you retrieve or that comes across your desk may have different formats. You may have to sort through the data to find what you are looking for. The data templates provided should help limit the amount of work you have to do. Use the templates to ask for specific data sets (or data queries).

**Limitations:** Accessing and collecting local data are more complex and expensive than using existing state sources. Sometimes accessing local data sources, such as emergency department data, may be impossible because the data are not computerized. You may be able to tap into state data sources that routinely computerize statewide data.

**Assistance:** There are many people in your community who can assist you in finding, collecting and analyzing data. Look for data helpers in a variety of places, such as health departments, colleges and universities, law enforcement agencies, and hospitals. These people may be health educators, epidemiologists, graduate students, interns, data specialists, people with formal data training, and people with on-the-job data experience. Work with your data keepers. Remember,

you are not alone.

### **How much data do I need to collect?**

The answer to this question can be best determined based on the size of your community. If your community is small, it may be necessary to collect data from 2-3 years prior to the year you are collecting because single catastrophic events may skew your data.

You have to collect more than baseline data to ensure you are not getting a misleading impression of where your top priorities are. In larger communities, it may not be as necessary to collect as much data because a major catastrophic event would not skew your data as much as in smaller communities. It is particularly important in small communities to include fatal and non-fatal injuries in the data collection to provide a clear problem identification picture.

### **How do I know if my “Big 3” have changed?**

You will know if your “Big 3” injury problems have changed by reevaluating the leading causes of fatal (transportation and non-transportation) and non-fatal (transportation and non-transportation) injuries in your community every 2-3 years. The rank order of the injury problems may change over time due to a variety of factors, so it is important that you stay aware of any of these changes. It is too big a task to monitor the rankings every year. Check for changes in injury problem priorities only every second or third year.

### **When will I see results?**

Since there may be a lag in the timeliness of data, it could take longer for you to show that your program has made an impact. Be patient, your hard work will pay off. Have confidence in the fact that you collected the appropriate data and completed a needs assessment of your community based on the data you collected. Since you based your injury prevention programs on the needs of your community, you are bound to see promising results.

## Injury Classification and Coding

E-codes (for the external cause of injury) are a part of the International Classification of Diseases (ICD) codes, developed through the World Health Organization. These codes provide a standard way to classify disease and injury information that doctors, nurses, paramedics, and social workers may put in the medical record. Basically, they are numbers assigned to specify the external causes for an injury (how it happened) and the nature of the injury (what kind of injury occurred). Numbers range from 800-999 with fourth and fifth digit extensions. At this time, the classification system is moving from a 9th revision, ICD-9 (used now for the classification of non-fatal injuries), to a 10th revision, ICD-10 (used for the classification of fatal injuries since 1999). The ICD-10 does not use E-codes, but rather defines codes to specify the mechanism, nature of the injury and intent (intentional or unintentional). For example, a query can detail how many head injuries occurred with bicycle crashes. Currently, the ICD-10 is being used for fatal injuries only and will eventually extend to being used for non-fatal injuries.

E-codes may be grouped into large categories to classify falls, motor vehicle-related crashes, fires, drownings, poisonings, assaults, firearm injuries, etc., using specific 3-digit numbers. If more detail is desired, then a fourth or fifth digit extension is used. For example, several E-codes apply to the “motor vehicle” classification alone, including E810.0 (driver of motor vehicle injured), E810.1 (passenger in motor vehicle injured), E810.7 (pedestrian injured), or E813 (motor vehicle traffic accident involving collision with other vehicle).

E-codes may not be available in every community; however, this should not stop you from trying to locate data. Ask for help from your state or local data specialists with regard to E-codes and bring a copy of the information you need using Tool Kit templates and examples. By including these data specialists as part of your Safe Communities coalition, you will increase the likelihood that your data will be reliable, timely and accurate. Even if the retrieval of the data are difficult, keep trying to get it.

E codes recreate a picture of the specific circumstances of an injury—the how and the where. In conjunction with other data, E-codes can be a valuable tool in tailoring your injury prevention activities.

See the National Center for Injury Prevention and Control web site for more information on E-code groupings: <http://www.cdc.gov/ncipc>.



## Why do I need this?

The purpose of the Community Profile is to provide for the collection of basic information on the demographics of your community. It will help describe what your community looks like and what makes it unique compared to other communities. Demographic information (about the people who live there) will help you ensure representation in your coalition that resembles the community's diversity (including age, race/ethnicity, economic status, gender). Your Safe Community group should reflect the makeup of the community. It may help you decide how best to approach the community and its injury problems or obstacles to communication. For example, learning that the community has a large ethnic population may suggest the need to use non-English language communications channel, such as foreign-language newspapers and radio stations. The community profile also includes a ranking of the ten leading causes of death. Unlike cancer, cardiovascular disease, and other chronic diseases, injuries disproportionately strike the young. The effect of this premature death is reflected in a measurement of the years of potential life lost (YPLL) for persons between the ages of 1 and 65 at the time of death (see Guide to Calculating YPLL on the back of the Comparison of the "Top 10" Leading Causes of Death For Your Community and Years of Potential Life Lost template).

## What do I collect?

This section includes the following data templates:

*Community Profile Worksheets (2)*  
*Comparison of Leading Causes of Death for Your Community*

These templates can guide you in finding the above information. The best approach for Safe Communities is to look at residence only. When trying to define your community, determine boundaries for your Safe Communities project. Then make a list of the zip codes contained within that area. Figure out the population for this defined area. This data can be listed under the geographic section of the first community profile worksheet.

## How can I use it?

The data you collect can be organized in a way that presents the characteristics of your community and what the leading causes of death might be. One method of prioritizing your community's health problems is by calculating years of potential life lost (YPLL) for each death that occurs from a specific cause. You can calculate YPLL by subtracting the age at death from 65 for all deaths that occur, regardless of cause.

Calculating YPLL and displaying the data on a chart may help stakeholders understand the impact injuries have in your community and help justify your programs. An example of how this is done can be found on the back of the Comparison of the “Top 10” Leading causes of Death For Your Community and Years of Potential Life Lost (YPLL) template.

It should take you approximately one week to complete the community profile process based on a pilot test of the tool kit. This timeline is only a guide. You can include as much or as little detail about your community as you wish. You should first decide how much you want to know about your community. Remember the goal of doing a community profile is to describe and define your area.

### **What are my best sources?**

The best sources for gathering the data in this section include but are not limited to:

- ★ Bureau of Census
- Local Chamber of Commerce (County or city data)
- Office of Vital Statistics



Safe Communities Project Area/Name:\_\_\_\_\_

Community Profile Worksheet

Community Definition:

Type: Urban [ ] Suburban [ ] Rural [ ] Other [ ]

Geographic Boundaries: \_\_\_\_\_

POPULATION CHARACTERISTICS

Population Distribution for the Community by Age, Gender, and Ethnicity, Year\_\_\_\_\_

AGE DISTRIBUTION			GENDER DISTRIBUTION			ETHNICITY		
Category (years)	Number	Percent	Category	Number	Percent	Category	Number	Percent
0-4			Female			White		
5-9						Black		
10-14						Hispanic Origin		
15-19			Male			American Indian		
20-24						Asian/Pacific Islander		
25-34						Other		
35-44						Total		
45-64								
65-74								
75+								
Total								
Other Age Groups								

What are your source(s) for this information\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Recommended source of information: Bureau of Census

\* Adapted from Virra, C. 1999. The Data Smart Manual: Use and analysis of data for local highway and traffic safety programs. National Highway Traffic Safety Administration



\_\_\_\_\_ Safe Communities Project Area/Name: \_\_\_\_\_

## Community Profile Worksheet

Inventory\* of Selected Types of Health Care Providers in the Community/Health Provider Characteristics

Provider/Facility Name/Address	Contact Person/Phone	Types of Services*	Number of Beds
Hospitals			
Walk-In Clinics			
Rehab Facilities			
Health Maintenance Organizations (HMO)			

\*Pediatric =P; Maternity=M; Adult=A; Geriatric=G; Trauma=T; Rehab=R; Emergency Room=ER; Veterans Services=V; Substance Abuse=S

What are your source(s) for this information \_\_\_\_\_

\_\_\_\_\_

Recommended sources of information: *American Hospital Association Guide to U.S. Hospitals, Networks, Health Care Systems, Alliances, Health Organizations, Agencies, and Providers*. (Published annually) \*Adapted from Vira, C. 1999. The Data Smart Manual: Use and analysis of data for local highway and traffic safety programs. National Highway Traffic Safety Administration.

Safe Communities Project Area/Name: \_\_\_\_\_

## Comparison of the “Top 10” Leading Causes of Death For Your Community and Years of Potential Life Lost (YPLL)

Year \_\_\_\_\_

Causes of Death	Raw Number	RANK		YPLL	RANK

What are your source(s) for this information \_\_\_\_\_

Recommended source of information: Office of Vital Statistics



See the back of this page for a guide to calculating YPLL

“Big 3” from YPLL ranking

1. \_\_\_\_\_
2. \_\_\_\_\_

# Guide to calculating Years of Potential Life Lost

One method of prioritizing your communities' health problems is by calculating years of potential life lost (YPLL) for each death that occurs from a specific cause. You can calculate YPLL by subtracting the age at death from 65 for all deaths that occur, regardless of cause. Calculating YPLL and displaying the data on a chart may help stakeholders understand the impact injuries have in on your community and help justify your programs.

Example: Figure 1

Years of Potential Life Lost Before Age 65 (by cause of death – United States, 1990)		
Cause of Death	YPLL in 1990	Percentage of Total
All causes (total)	12,237,379	100
Unintentional injuries	2,235,335	17.5
Malignant neoplasms	1,846,719	15.1
Suicide/homicide	1,493,672	12.2
Diseases of the heart	1,375,923	11.2
Congenital anomalies	666,684	5.4
HIV (including AIDS)	660,261	5.4

\*Source: McKenzie, & J.F, Pinger, R.R. 1997. An Introduction to Community Health: Web Enhanced Edition. London: Jones and Bartlett Publishers International.

As you can see in Fig. 1, a total of 12,237,379 years of potential life were lost by people who died before they reached 65 years of age. Using this approach, unintentional injuries, which accounted for 17.5% of all YPLL was the most serious community health problem in 1990.

# EXAMPLES

The following examples are included to provide you with ideas about how the community profile data you have collected can be presented. These examples are not in any way intended to limit your own creativity when designing your own presentations. These are just a few of the many ways in which the data can be organized into effective and persuasive presentations. The examples included in this tool kit represent real data from real communities. For step-by-step instructions in creating charts from the automated templates, see the “Instructions and Comments” page.

# Boca Raton Community Profile

Located in southern Palm Beach County, the Greater Boca Raton area encompasses the City of Boca Raton and its reserve area. Once a quiet farming community, the city incorporated in 1925 and has become a prosperous and fast-growing area with a strong business base and educational opportunities including a state university, community college and a range of private schools. Known for its mild climate (average annual temperature is 74°), five miles of ocean frontage, abundant waterfront property, sports and recreational opportunities, and shopping centers, Boca Raton attracts families, retirees, and a seasonal and tourist population.



## Population (1995 est.)

### Permanent Residents:

168,858 (total)  
80,696 (city limits)  
88,162 (unincorporated area)

**Seasonal Residents:** 20, 439

**Tourists:** 5,099

## Gender

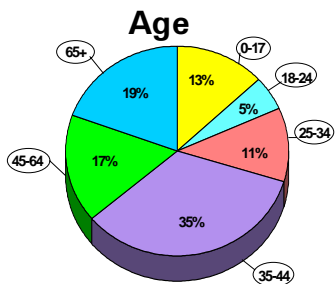
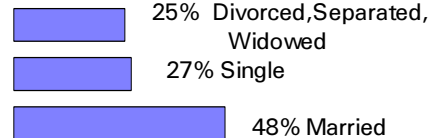


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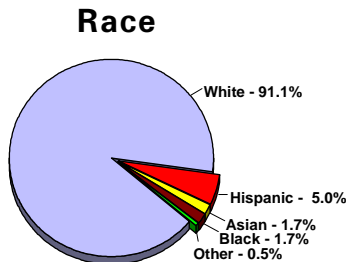


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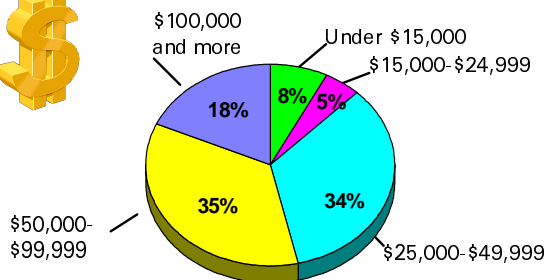
## Marital Status



**Median Age:** 42.7



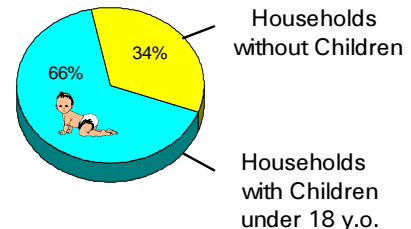
## Household Income



**Median Household Income:**

**\$55,705 (1995)**

## Children



## Major businesses:

Boca Raton Resort and Club, Siemens, Transamerica, NCCI, Rexall, SONY, W.R. Grace, BellSouth Mobility, Lynn Insurance, Sensormatic, CORE, IBM (R&D), Unisys, Alliant Service, Pepsi-Co, Boca Research, Boca Raton Community Hospital, West Boca Medical Center, FAU (Fl. Atlantic Univ.)

**Average Cost of Housing**  
**\$175,000 (1995)**



# Duval County Community Profile



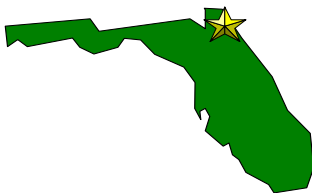
## Safe Communities of Jacksonville

Rev. 05/01/00

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### General Characteristics of Duval County

#### Geography



- Duval County covers 840 square miles, of which 74 are water. It is located on the flat Atlantic Ocean coastal plain in the northeast corner of Florida. Besides the oceanfront, the major geographic feature of the area is the St. Johns River and its tributaries, which meander through the county. The waterways have presented a challenge for land transportation, funneling road and highway networks over bridges at certain locations. They have also provided an opportunity for economic development through commercial seaport and U.S. Navy activities. The county's location at the most western point along the United States Atlantic coast has contributed to making Jacksonville a major transfer point for water-land transport. In addition, both the ocean and waterways provide a wide variety of recreational opportunities.

Source: Quality of Life  
in Jacksonville:  
Indicators for Progress  
November 1999

# General Characteristics of Duval County

- Climate



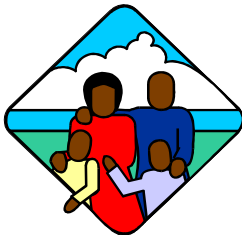
Source: Quality of Life  
in Jacksonville:  
Indicators for Progress  
November 1999

- Jacksonville/Duval County is located at 30 degrees north latitude, a latitude normally associated with subtropical desert conditions and sunshine. Yet the proximity of the Atlantic Ocean and the Gulf of Mexico brings greater humidity and ample precipitation to the area, allowing the growth of the lush subtropical vegetation and flowers, which led Spanish explorers to name the area Florida. Average annual precipitation is about 53 inches, much of which falls in summer thunder showers. Temperatures range fairly uniformly each day in summer from the 70s (Fahrenheit) to 90s. More variability is experienced in winter, when temperature ranges vary from the 60s to 80s on some days to the 20s to 40s on a few days. An average of 15 overnight freezes occur annually, but on almost all winter days temperatures rise over the freezing mark. The highest temperature recorded at the Jacksonville airport is 105; the lowest is 11.

---

# General Characteristics of Duval County

- Population



Source: Quality of Life  
in Jacksonville:  
Indicators for Progress  
November 1999

- The total population of Duval County was 753,823 in 1998, as estimated based on the 1990 U.S. Census. In 1960 it was only 455,411. Total population growth between 1960 and 1970 was 16.1 percent; between 1970 and 1980 it slowed to only 8.0 percent; between 1980 and 1990 it accelerated to 17.9 percent.
- The population is gradually aging, consistent with national trends. Between 1975 and 1998, the population group of ages 0 to 17 decreased from 28.6 percent to 26.2 percent of the total. During the same period, the segment with ages 65 and over increased from 9.7 percent to 11.1 percent of the total.
- The population contains ethnic minority groups, the largest of which is an African-American population. The proportion of the total population who are people of color is gradually increasing. It rose from 22.7 percent in 1975 to 27.1 percent in 1998.



# General Characteristics of Duval County

## • Population



Source: Quality of Life  
in Jacksonville:  
Indicators for Progress  
November 1999

- The size of American households has been decreasing in recent years, and Jacksonville's population reflects this national trend. The average household size decreased sharply from 3.58 persons in 1975 to 2.53 by 1991. The average household size for 1998 remains about the same at 2.54.
- Per capita income has been increasing in Jacksonville. In 1974, annual per capita personal income was \$5,416 (\$16,563 in 1998 dollars). The 1996 figure, adjusted to 1998 dollars is \$23,035, revealing a 39 percent real-dollar increase over 22 years. Of course, not all Jacksonville residents have benefited equally from this average increase.
- The 1990 U.S. Census indicates that 12.8 percent of persons in Duval County had incomes in 1989 below the official poverty level. This represents an improvement from the poverty rate of 15.8 percent reported in the 1980 Census. Estimates of poverty at the county level are not available between censuses.

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# General Characteristics of Duval County

## • Economy



Source: Quality of Life  
in Jacksonville:  
Indicators for Progress  
November 1999

- The economy of Jacksonville/Duval County is diversified and growing. Apart from retailing and service industries, core segments of the local economy have included insurance; train, truck, and sea transport; wholesale warehousing; finance and banking; manufacturing (especially wood product industries); and government (especially local government and the navy). More recently, high-technology industries have begun to locate in Jacksonville, further diversifying and strengthening the economy.
- In 1998, civilian employment in the Jacksonville metropolitan area's economy was distributed as follows:

• services	33%
• retail trade	19%
• government	13%
• finance, insurance, and real estate	10%
• manufacturing	7%
• transportation, communication, and public utilities	7%
• wholesale trade	5%
• construction	5%
• other	1%

# 1998 Duval County Years of Potential Life Lost (YPLL)

Rank	Disease/ Injuries	Mortality	YPLL
1	Injuries	440	14,438.5
2	Cancer	1,512	13,747.0
3	Heart Disease	1,864	9,388.5
4	Stroke	429	2,334.5
5	COPD	341	2,058.0

Source: State of Florida  
Office of Vital Statistics  
Reporting: DCHD/Injury Prevention

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## Why do I need this?

It is important to get a clear picture of what the “Big 3” injury problems are in your community and to rank motor vehicle injuries within the context of all injuries. The templates in this section will help you to rank fatal and non-fatal injuries. This can provide a comprehensive view of the injury problem and can help change the view of civic leaders and stakeholders as to the magnitude of the traffic injury problem.

It is also important to collect billing data to find out how much the hospitals actually charge to treat (hospitalizations and/or emergency room visits) the “Big 3” injury problems in your community. Estimates of costs really get the attention of your policy makers especially when the estimates are localized and represent the impact of an injury problem on their citizens.

## What do I collect?

This section includes the following data templates:

### Fatal Injuries

*Leading Causes of Fatal Injuries*

*Leading Causes of Transportation Fatal Injuries*

*Transportation Fatal Injuries by Demographics*

*Fatal Injuries by Demographics (Other than transportation)*

### Non-fatal Injuries

*Leading Causes of Non-Fatal Injuries*

*Leading Causes of Non-Fatal Transportation Injuries*

*Non-Fatal Transportation Injuries by Demographics*

*Non-Fatal Injuries by Demographics (Other than transportation)*

### Medical Charges

*Medical Charges for the Leading Causes of Non-Fatal Injuries*

## How can I use it?

Ranking these injuries will help you to focus your energies and resources on the “Big 3” Injuries in your community. Once you have compiled all the necessary data, you can organize it in a way that makes sense. **Complete the demographic templates for the “Big 3” injury problems only.** It is important to compare the percentage of injury type within an age group (injury profile) with the percentage of that age group in the overall population (community profile). The automated Excel file templates will do this for you.

## What are my best sources?

The best sources for gathering the data in this section include but are not limited to:

### ★ Fatal Injuries

Office of Vital Statistics

- Police crash reports
- Fatality Analysis Reporting System (FARS)

### ★ Non-fatal Injuries

Traffic Crash Reports

- Emergency department records
- Trauma records
- Hospital discharge files
- Outpatient facility medical records
- EMS run reports

### ★ Medical Charges

Hospital finance department

- Outpatient facility medical records
- Emergency Medical Service reports
- Emergency department medical records
- Insurance claim files

The recommended sources for fatality data are the death records from your State Office of Vital Statistics or FARS report from your State Highway Safety Office. Best sources for non-fatal injuries are hospital discharge files (hospitalizations), emergency department records, and trauma records.

For non-fatal injuries, (at a minimum) you should complete templates for hospital discharge, emergency department records, and trauma records to get a complete picture of your community’s injury problems. Some of these sources may not be computerized or available, if so the traffic crash report may be your only source of data. Use the data that is available in your community.

# FATAL INJURY TEMPLATES

Safe Communities Project Area/Name: \_\_\_\_\_

## Leading Causes of Fatal Injuries

Year \_\_\_\_\_

Injury Cause/E-Code	Number	Rank
Motor Vehicles (810-825)		
Drownings (830, 832, 910)		
Poison (850-869)		
Falls (880-888)		
Fire and Flame (890-899)		
Suffocation (911-913)		
Suicide (950-959)		
Homicide (965-978)		
Firearm/Explosives (922, 955, 965, 985)		
Other		

What are your source(s) for this information \_\_\_\_\_

Recommended source of information: Office of Vital Statistics



“Big 3” from ranking

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

Safe Communities Project Area/Name: \_\_\_\_\_

Leading Causes of Fatal Transportation Injuries

Year \_\_\_\_\_

Injury Cause/E-Codes	Number	Rank
Motor Vehicle Driver (810.0-819.0)		
Motor Vehicle Occupant (810.1-819.1)		
Bicycle (810.6-819.6)		
Pedestrian (810.7-819.7)		
Other		
Other		
Other		
Other		
Other		
Other		

What are your source(s) for this information \_\_\_\_\_

Recommended source of information: Office of Vital Statistics



“Big 3” from ranking

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_



**Safe Communities Project Area/Name:**

# Fatal Transportation Injuries by Demographics

Year

[illegible]

	Population		Pedestrian Actions		Driver Actions		Mid Block Crossing		Environmental/ Roadway Design		Conspicuity (Visibility)	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Ethnicity</b>												
American Indian												
Asian/Pacific												
Black												
Hispanic Origin												
White												
<b>Total</b>												
<b>Other Ethnic Groups</b>												

What are your source(s) for this information

Recommended source of information: Police and traffic crash report

# NON-FATAL INJURY TEMPLATES

Safe Communities Project Area/Name: \_\_\_\_\_

Leading Causes of Non-Fatal Injuries

Year \_\_\_\_\_

Injury Cause/E-Code	Number	Rank
Motor Vehicles (810-825)		
Drownings (830, 832, 910)		
Poison (850-869)		
Falls (880-888)		
Fire and Flame (890-899)		
Struck/Cut/Caught (916-918)		
Attempted Suicide (950-959)		
Assault (960-978)		
Firearm/Explosives (922, 955, 965, 985)		
Adverse Affects/Medication (850-858)		
Other		
Other		

What are your source(s) for this information \_\_\_\_\_

Recommended source of information: Office of Vital Statistics

Note: Keep in mind to get the correct e-codes, you will need to be specific and include 3 digit codes, such as 810, and/or 4 digit codes, such as 810.1.



“Big 3” from ranking

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

Safe Communities Project Area/Name: \_\_\_\_\_

## Leading Causes of Non-Fatal Transportation Injuries

Year \_\_\_\_\_

Injury Cause/E-Code	Number	Rank
Motor Vehicle Driver (810.0-819.0)		
Motor Vehicle Occupant (810.1-819.1)		
Bicycle (810.6-819.6)		
Pedestrian (810.7-819.7)		
Other		
Other		
Other		
Other		
Other		
Other		

What are your source(s) for this information \_\_\_\_\_

Recommended source of information: Office of Vital Statistics

Note: Keep in mind to get the correct e-codes, you will need to be specific and include 3 digit codes, such as 810, and/or 4 digit codes, such as 810.1.



“Big 3” from ranking

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

**Safe Communities Project Area/Name:**

# Non-Fatal Transportation Injuries by Demographics

Year \_\_\_\_\_

[illegible]

	Population		Pedestrian Actions		Driver Actions		Mid Block Crossing		Environmental/ Roadway Design		Conspicuity (Visibility)	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Ethnicity</b>												
American Indian												
Asian/Pacific												
Black												
Hispanic Origin												
White												
<b>Total</b>												
<b>Other Ethnic Groups</b>												

What are your source(s) for this information

Recommended source of information: Police and traffic crash report



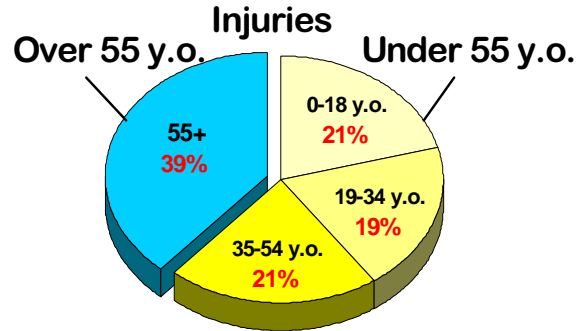
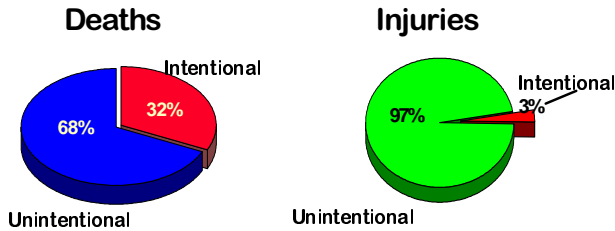
# EXAMPLES

The following examples are included to provide you with ideas about how the injury profile data you have collected can be presented. These examples are not in any way intended to limit your own creativity when designing your own presentations. These are just a few of the many ways in which the data can be organized into effective and persuasive presentations. The examples included in this tool kit represent real data from real communities. For step-by-step instructions in creating charts from the automated templates, see the “Instructions and Comments” page.

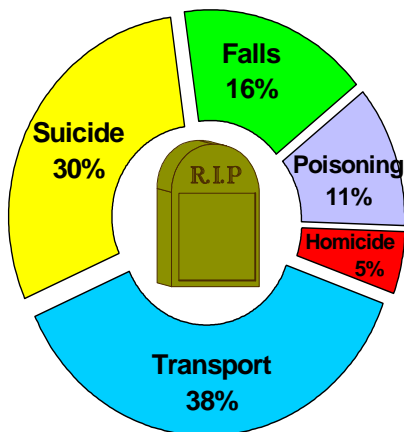


# Boca Raton 1996 Injury Profile

The majority of injury fatalities and injuries are unintentional

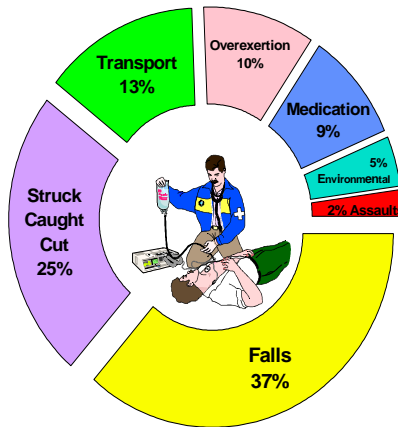


## Leading Causes of DEATHS



Source: Florida of Vital Statistics Mortality Data

## Leading Causes of INJURIES



Source: Boca Raton Community Hospital Emergency Department Data

## Leading Causes of DEATH by Gender:

- | Female:      | Male:        |
|--------------|--------------|
| 1) Transport | 1) Suicides  |
| 2) Falls     | 2) Transport |
| 3) Suicides  | 3) Falls     |
| 4) Poisoning | 4) Poisoning |

## Leading Causes of INJURIES by Gender:

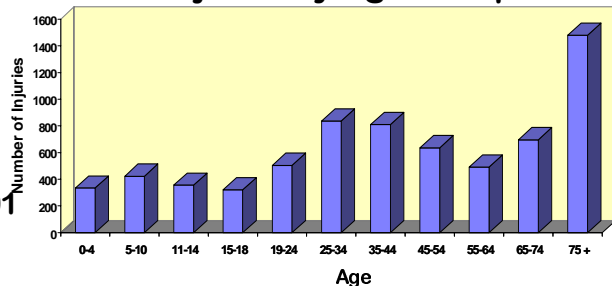
- | Female:               | Male:                 |
|-----------------------|-----------------------|
| 1) Falls              | 1) Struck/Cut/ Caught |
| 2) Struck/Cut/ Caught | 2) Falls              |
| 3) Transport          | 3) Transport          |
| 4) Medication         | 4) Overexertion       |

## Cost of Injuries:



<b>TOTAL</b>	<b>\$15,486,868</b>
Falls	\$6,341,992
Medication	\$5,897,529
Transport	\$822,974
Struck/Cut/Caught	\$570,701
Suicide	\$348,041
Overexertion	\$218,358

## Injuries by Age Group



# Duval County Community Injury Profile 1998



**Safe Communities of Jacksonville  
DCHD/Injury Prevention Program**

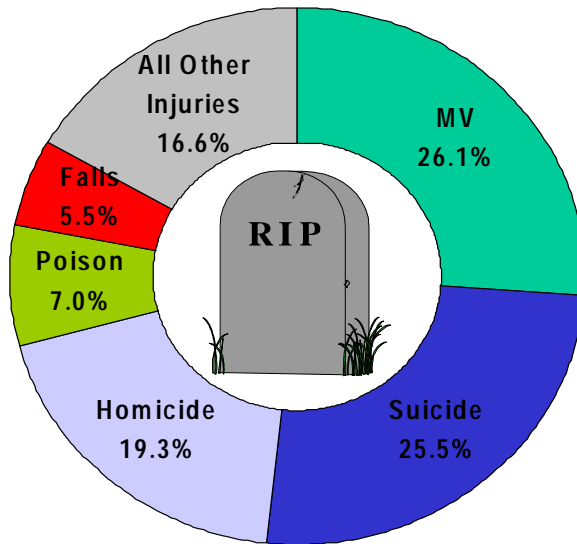
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## 1998 Duval County Leading Causes of Injury Fatalities

Rank	Injury Type	Number
1	Motor Vehicle	115
2	Suicide	112
3	Homicide	83
4	Poison	31
5	Falls	24

Source: State of Florida  
Office of Vital Statistics

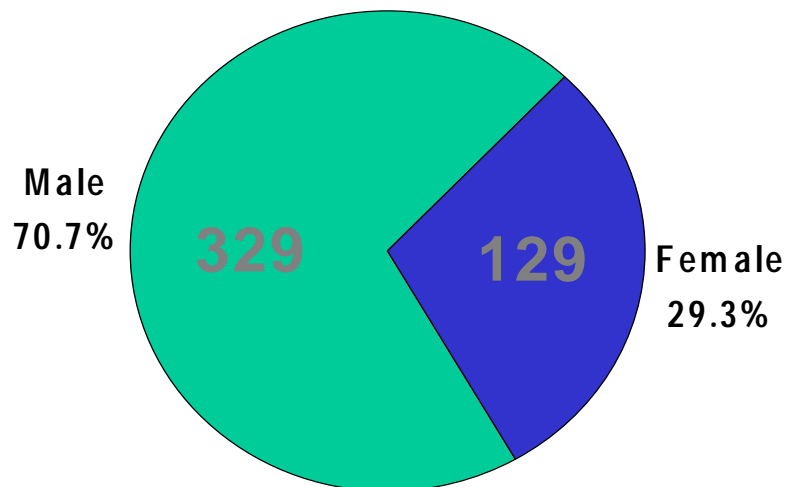
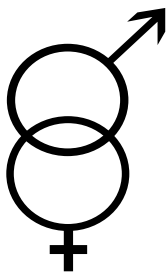
# 1998 Duval County Leading Causes of Injury Death



Source: State of Florida  
Office of Vital Statistics

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## 1998 Duval County Injury Fatalities by Gender



Source: State of Florida  
Office of Vital Statistics

# Greater Boca Raton Area 1996 Transport Related

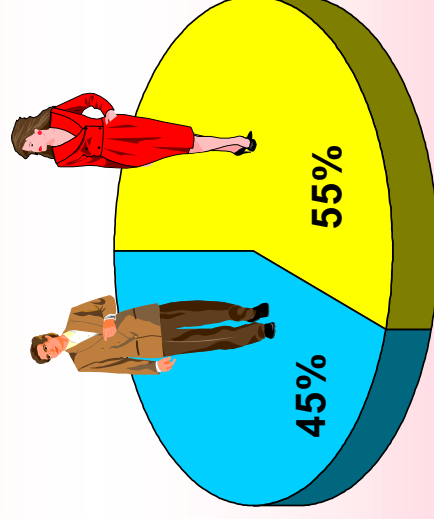
## *Injuries*

### By Age Group



### By Gender

0-10	0	41
11 -14	5	39
15 -18	8	74
19-24	12	121
25-34	18	141
35-44	17	126
45-54	13	95
55 +	2	196



Source: Boca Raton Community Hospital  
 Emergency Department Data

Compiled by: Safe Communities, Boca Raton  
 Florida Atlantic University, College of Nursing

# MEDICAL CHARGES

Safe Communities Project Area/Name: \_\_\_\_\_

## Medical Charges for the Leading Causes of Non-Fatal Injuries

Year \_\_\_\_\_

Injury Cause/E-Code	Total Charges	Rank
Motor Vehicles (810-825)		
Drownings (830, 832, 910)		
Poison (850-869)		
Falls (880-888)		
Fire and Flame (890-899)		
Struck/Cut/Caught (916-918)		
Attempted Suicide (950-959)		
Assault (960-978)		
Firearm/Explosives (922, 955, 965, 985)		
Adverse Affects/Medication (850-858)		
Other		
Other		

What are your source(s) for this information \_\_\_\_\_

Recommended source of information: hospital discharge files, outpatient facility medical records, and registries (trauma)



“Big 3” from ranking

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

# EXAMPLES

The following examples are included to provide you with ideas about how the medical charges data you have collected can be presented. These examples are not in any way intended to limit your own creativity when designing your own presentations. These are just a few of the many ways in which the data can be organized into effective and persuasive presentations. The examples included in this tool kit represent real data from real communities. For step-by-step instructions in creating charts from the automated templates, see the “Instructions and Comments” page.



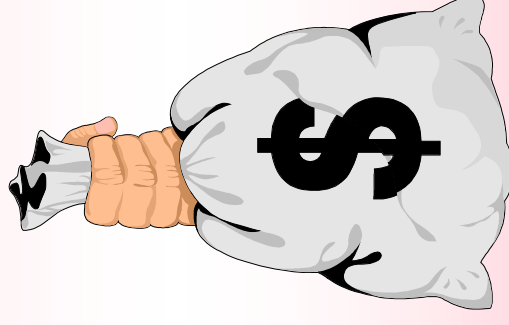


# Medical Charges for 1996

## Injuries

**TOTAL:**      **\$15,486,868**

Falls	\$6,341,992
Medication	\$5,897,529
Transport	\$822,974
Struck/Cut/Caught	\$570,701
Suicide	\$348,041
Overexertion	\$218,358

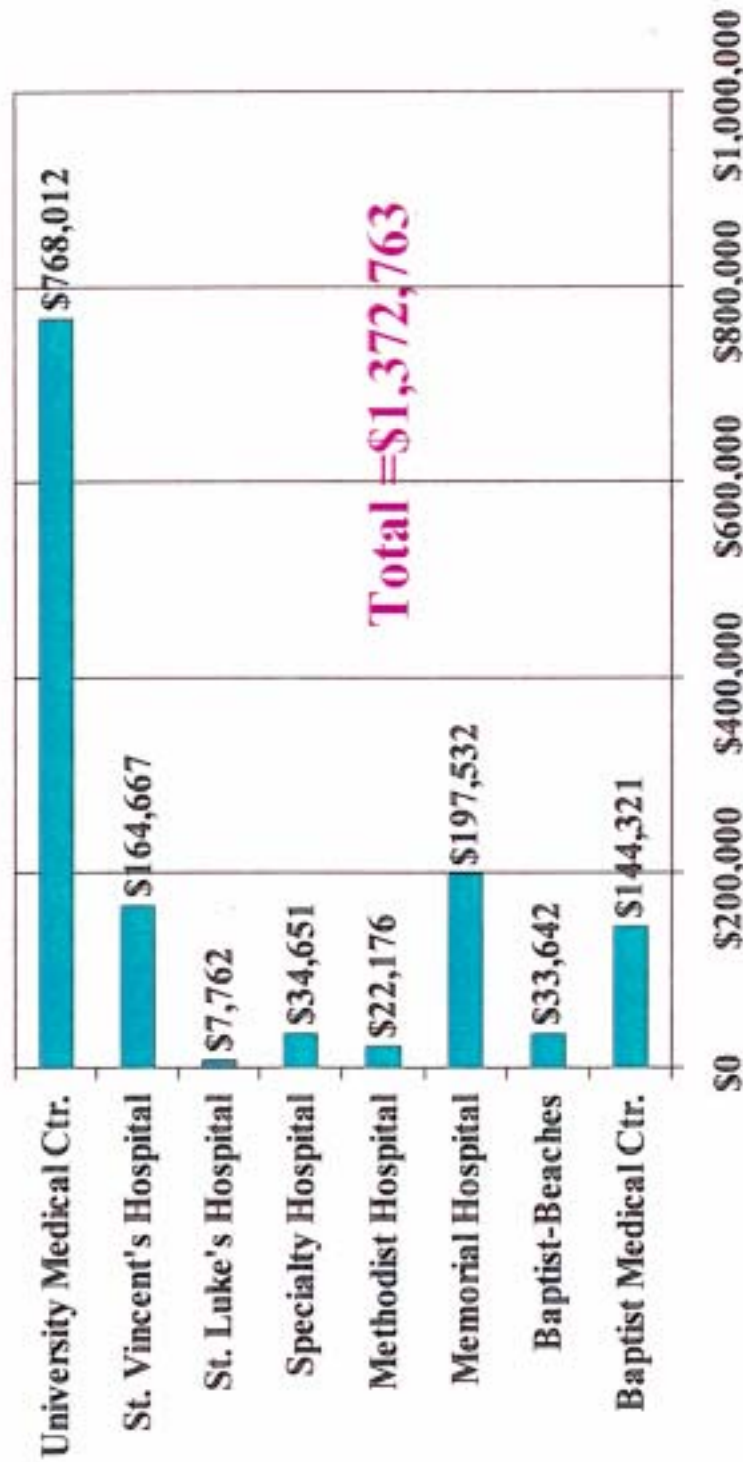


*Source: Boca Raton Community Hospital  
Emergency Department Data*

*Compiled by: Safe Communities, Boca Raton  
Florida Atlantic University, College of Nursing*

# 1998 Duval County Hospital Inpatient Cost for Injuries

ICD-9 873-887, 890-897, 900-917, 919-920 & 922-939  
(E-codes 800-999)



Source: Health Planning Council of Northeast Florida, Inc.

Reporting: DCHD/TIPPO

## CONTRIBUTING FACTORS

### Why do I need this?

Now that you've identified the "Big 3" injury problems for fatal injury, non-fatal injury, and the affected population groups, continue your data collection efforts related to contributing factors. In collecting contributing factors, you should only focus on the "Big 3". Why? Injury surveillance procedures dictate that a community program collect data on all injury problems, examining every aspect of injury in the community, conducting special studies to capture every element of all injury problems.

Remember---we are not establishing an injury surveillance program here. Your goal is simply to identify the priority problems that must be addressed with the limited resources in your community. With that goal in mind, additional data collection should be focused only on the "Big 3". Your next step is to determine what behavioral or environmental factors (alcohol, speed, roadway design, etc.) contributed to the "Big 3" injury problems in the first place.

The Data Tool Kit provides templates for a basic analysis of major contributing factors for motor vehicle, bicycle, or pedestrian injuries. Note that the templates do not identify every possible contributing factor; instead, the focus is on factors that could be addressed by a typical Safe Community coalition and the most prominent factors related to the problem. Typically data is reported for drivers; in your community you should include data related to all individuals involved in the incident.

If your Safe Community program has a non-transportation related injury (within the "Big 3"), such as firearm or farm injuries, then you will need to tailor a Contributing Factors Template that would include those human or environmental factors typically associated with that type of injury.

### What do I collect?

This section includes the following data templates:

- Contributing Factors to Motor Vehicle Fatalities by Demographics*
- Contributing Factors to Motor Vehicle Non-Fatal Injuries by Demographics*
- Contributing Factors to Bicycle Injuries*
- Contributing Factors to Pedestrian Injuries*

## How can I use it?

The following questions will be answered by this set of templates - Why these injuries are occurring and Who is affected by those injuries? Are there any groups that are over represented (potential target groups)? If you know what human and environmental factors may have contributed to the "Big 3" injuries in your community, then you can design strategies that affect those specific contributing factors.

The identified factors also point you in the right direction of other organizations or resource agencies that can address a specific contributing factor. For example, you've identified motor vehicle injuries among teens and young adults (16 – 20 yr.) as one of the "Big 3". In this example, the "Big 3" contributing factors are alcohol, speed, and nonuse of safety belts. Your Safe Community coalition may recruit law enforcement agencies, high schools and colleges, alcohol and drug abuse programs, SADD, MADD and local retailers/servers (underage drinking) as possible partners in addressing this injury problem in your community.

Once you analyze your data, you need to determine 3 things: 1) What is the problem?, 2) Are there effective countermeasures to address the problem?, and 3) What is the cost of the countermeasures and can the community implement it? This ensures that that your program has an impact on a notable community problem.

## What are my best sources?

- ★ Police reports

**Safe Communities Project Area Name:** \_\_\_\_\_

# Contributing Factors to Motor Vehicle Fatalities by Demographics

Year

[illegible]

	Population		Pedestrian Actions		Driver Actions		Mid Block Crossing		Environmental/ Roadway Design		Conspicuity (Visibility)	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Ethnicity</b>												
American Indian												
Asian/ Pacific												
Black												
Hispanic Origin												
White												
<b>Total</b>												
<b>Other Ethnic Groups</b>												

What are your source(s) for this information

Recommended source of information: Police and traffic crash report

Safe Communities Project Name/Areas	
1	...
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# Contributing Factors to Motor Vehicle Non-Fatal Injuries by Demographics

Year \_\_\_\_\_

[illegible]

	Population		Pedestrian Actions		Driver Actions		Mid Block Crossing		Environmental/ Roadway Design		Conspicuity (Visibility)	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Ethnicity</b>												
American Indian												
Asian/Pacific												
Black												
Hispanic Origin												
White												
<b>Total</b>												
<b>Other Ethnic Groups</b>												

What are your source(s) for this information

Recommended source of information: Police and traffic crash report



**Safe Communities Project Name/Areas:**

# Contributing Factors to Bicycle Injuries

Year \_\_\_\_\_

[illegible]

	Population		Pedestrian Actions		Driver Actions		Mid Block Crossing		Environmental/ Roadway Design		Conspicuity (Visibility)	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Ethnicity</b>												
American Indian												
Asian/Pacific												
Black												
Hispanic Origin												
White												
<b>Total</b>												
<b>Other Ethnic Groups</b>												

What are your source(s) for this information

Recommended source of information: Police and traffic crash report

Safe Communities Project Name/Areas

# Contributing Factors to Pedestrian Injuries

Year \_\_\_\_\_

[illegible]

	Population		Pedestrian Actions		Driver Actions		Mid Block Crossing		Environmental/ Roadway Design		Conspicuity (Visibility)	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Ethnicity</b>												
American Indian												
Asian/Pacific												
Black												
Hispanic Origin												
White												
<b>Total</b>												
<b>Other Ethnic Groups</b>												

What are your source(s) for this information

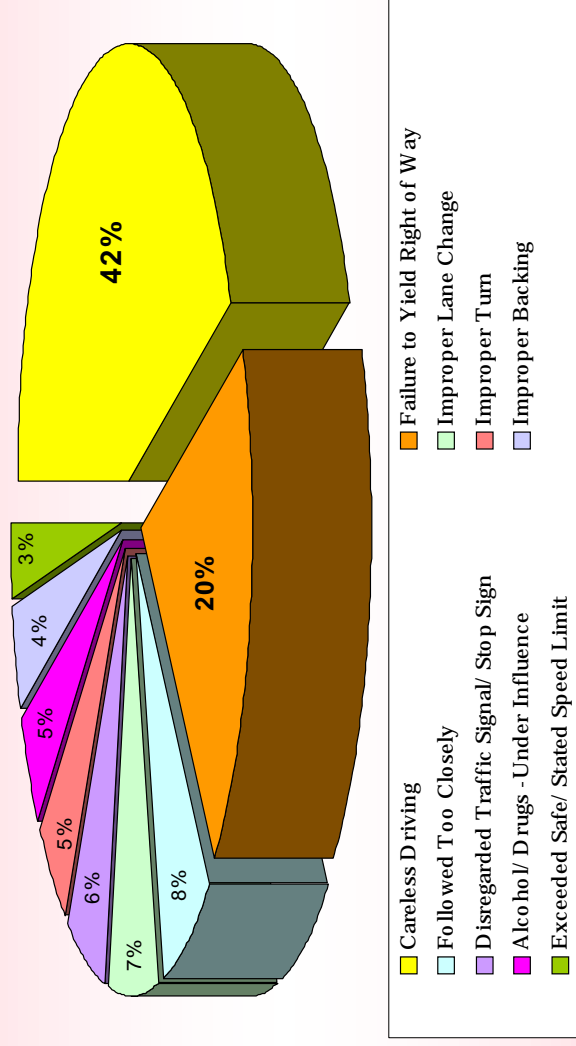
Recommended source of information: Police and traffic crash report

# EXAMPLES

The following examples are included to provide you with ideas about how the contributing factors data you have collected can be presented. These examples are not in any way intended to limit your own creativity when designing your own presentations. These are just a few of the many ways in which the data can be organized into effective and persuasive presentations. The examples included in this tool kit represent real data from real communities. For step-by-step instructions in creating charts from the automated templates, see the “Instructions and Comments” page.

# 1998 Palm Beach County Motor Vehicle

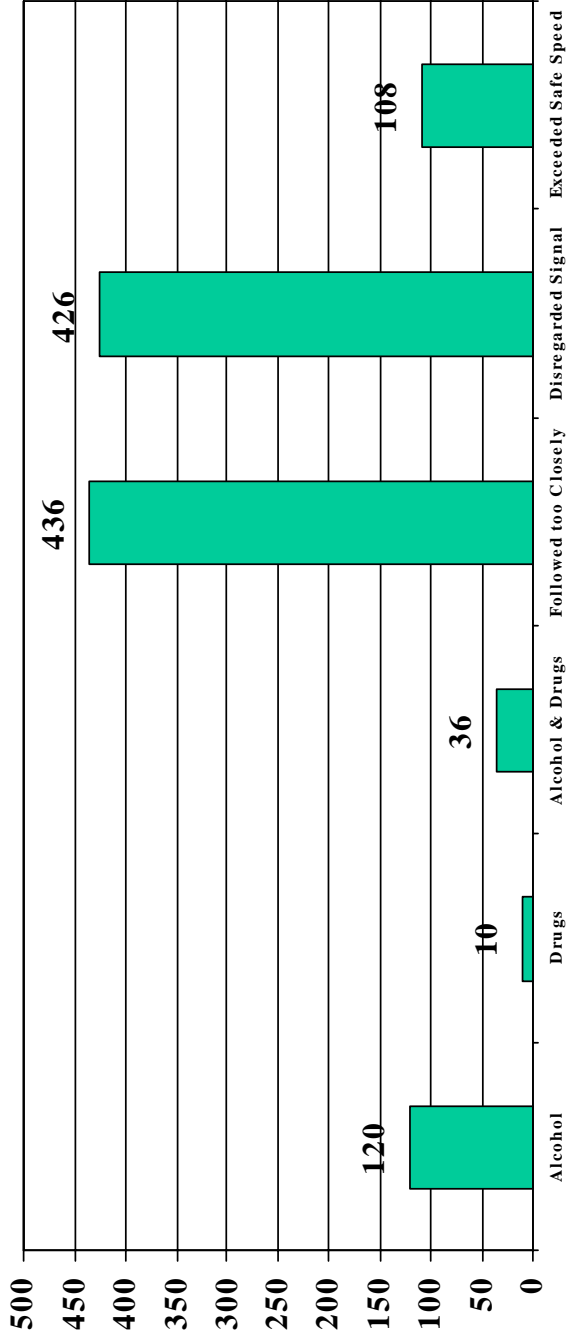
## Crashes Leading Contributing Causes



Source: PBC Crash Report, 1998  
PBC Traffic Engineering

Compiled by: Safe Communities, Palm Beach County  
Florida Atlantic University, College of Nursing

# 1998 Duval County Crashes by Driver's First Contributing Cause



**Source: DHSMV**

**Reporting: DCHD/TIPPO**

### Why do I need this?

It is important to know where the injuries in your community are occurring. This information can be useful in targeting your interventions to a specific geographical area.

### What do I collect?

This section includes the following data templates:

*Transportation Fatal Injuries by Zip Code*  
*Non-Fatal Transportation Injuries by Zip Code*

Other information you will need to collect includes the name or route number of the street, road, highway or intersection where the crash or injury occurred. Contact your local traffic engineer within your city or county government who will be able to help you with this process.

### How can I use it?

This data can be plotted on a map using something as simple as stickpins. Once you plot where the injuries occurred, then you can look for clusters or areas where large numbers of injuries are taking place in your community. This approach has been used for many years in targeting high injury crash locations for motor vehicle crashes. These areas should be the targets of your injury control interventions. By working closely with law enforcement, high speed or DUI crash areas can be targeted with saturation patrols along with community-wide public awareness activities to reduce the problem on these roadways. Many Safe Community programs publish the “Ten Most Dangerous Roadways” in their local newspapers to publicize high injury crash locations in their community. This brings attention to the crash problem and alerts citizens on the need to practice safety behaviors behind the wheel of an automobile.

Another tool is the use of zip code mapping to identify target areas. By comparing hospital data with zip code location information, Safe Community programs can identify the neighborhoods in the community that are primarily affected by the “Big 3”. For example, bicycle injury may have been one of your “Big 3”. A zip code map may reveal that many of the victims that appear in the emergency room may come from an impoverished neighborhood in your community. A bicycle helmet survey may further validate the need for a bicycle safety and a helmet promotion program targeting this segment of the community. Mapping is a valuable subset of data that allows you to bring your program to the neighborhood in need!



## **What are my best sources?**

### Location Mapping

- ★ Police Crash Report
- Local or District Traffic engineers

### Zip Code Mapping

- ★ Emergency Department medical records

**Safe Communities Project Area/Name:** \_\_\_\_\_

# Fatal Transportation Injuries by Zip Code

Year \_\_\_\_\_

[illegible]

**Safe Communities Project Area/Name:** \_\_\_\_\_

## Non-Fatal Transportation Injuries by Zip Code

---

**Year**

[illegible]

# EXAMPLES

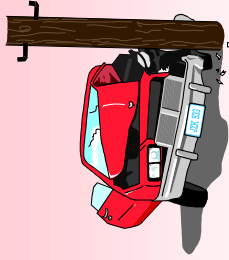
The following examples are included to provide you with ideas about how the location and mapping data you have collected can be presented. These examples are not in any way intended to limit your own creativity when designing your own presentations. These are just a few of the many ways in which the data can be organized into effective and persuasive presentations. The examples included in this tool kit represent real data from real communities. For step-by-step instructions in creating charts from the automated templates, see the “Instructions and Comments” page.



■ = 1998 Top Ten Injury Crash Intersection for Jacksonville.

## Injury Mapping How was this done?

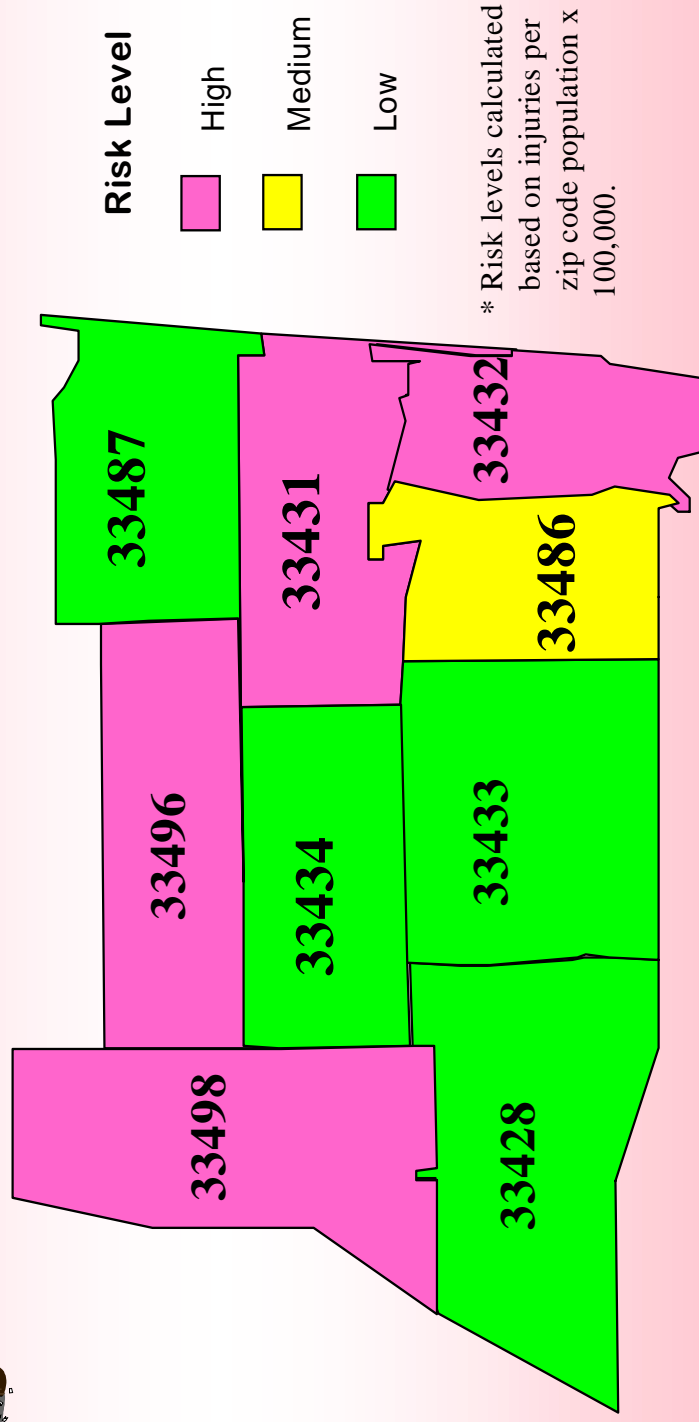
- STEP 1 - Get the top 10 injury crash locations/intersections from your state or city traffic engineers.
- STEP 2 - Access the city or county government website if available to download your local map to the PowerPoint program.
- STEP 3 - Use the toolbar square shape. Drag the squares to the appropriate location on the map. Color in the squares to help you quickly locate your problem areas for ranking purposes.



# 1996 Boca Raton High Risk

## Areas

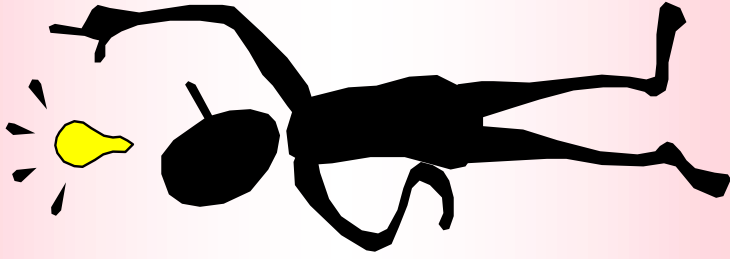
### *Motor Vehicle Crash Injuries*



**Source: Boca Raton Community Hospital**

*Compiled by: Safe Communities, Boca Raton  
Florida Atlantic University, College of Nursing*

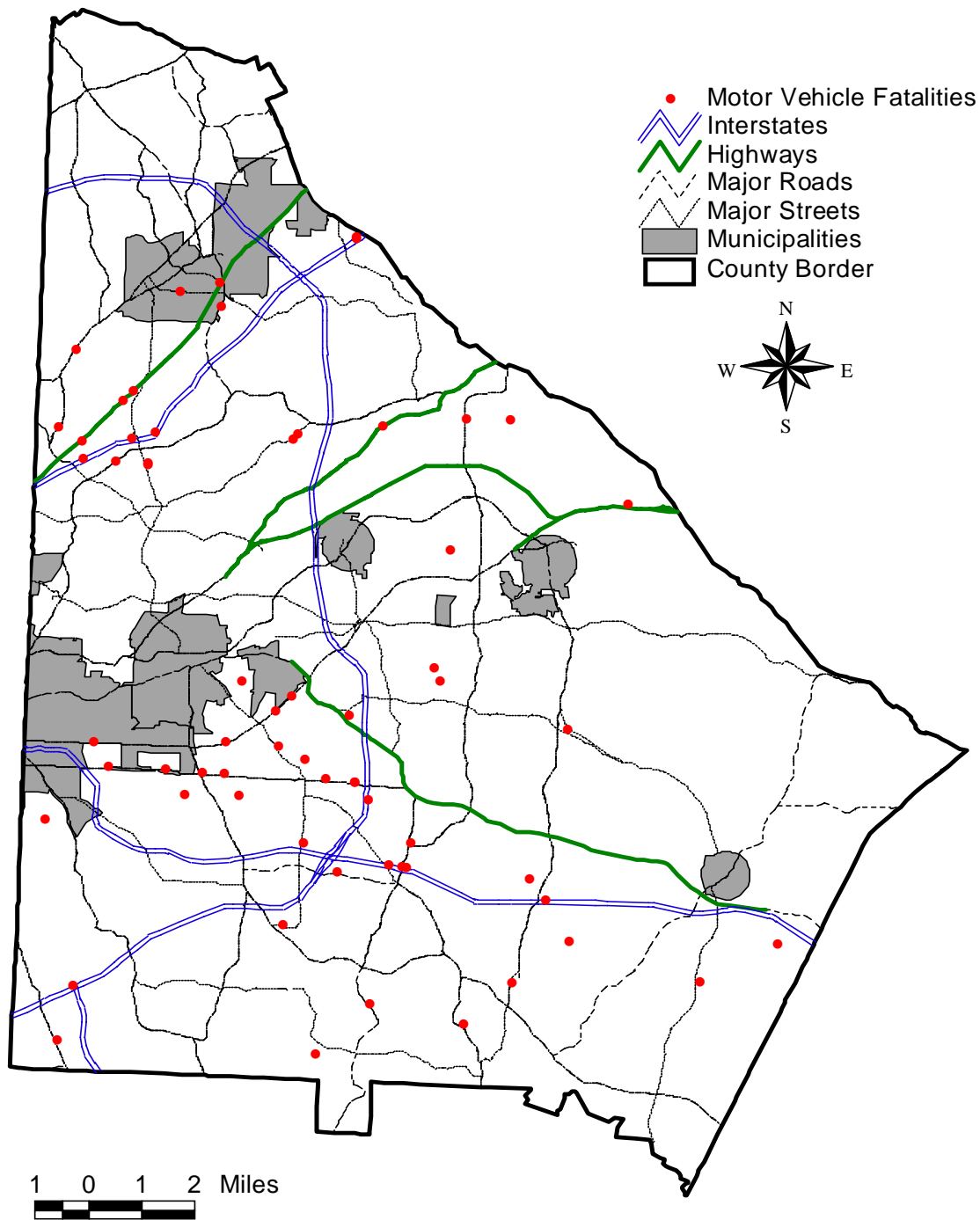
# How is this done?



- An Excel chart was used to organize the information including: zip code areas, zip code populations, fatal injuries per zip code area, and rate calculation per zip code area. The zip codes areas were then ranked for risk levels.
- The map of zip code areas was drawn using the Drawing Toolbar. An easier way is to scan in a map and then color to high-risk locations.

*Compiled by: Safe Communities, Boca Raton  
Florida Atlantic University, College of Nursing*

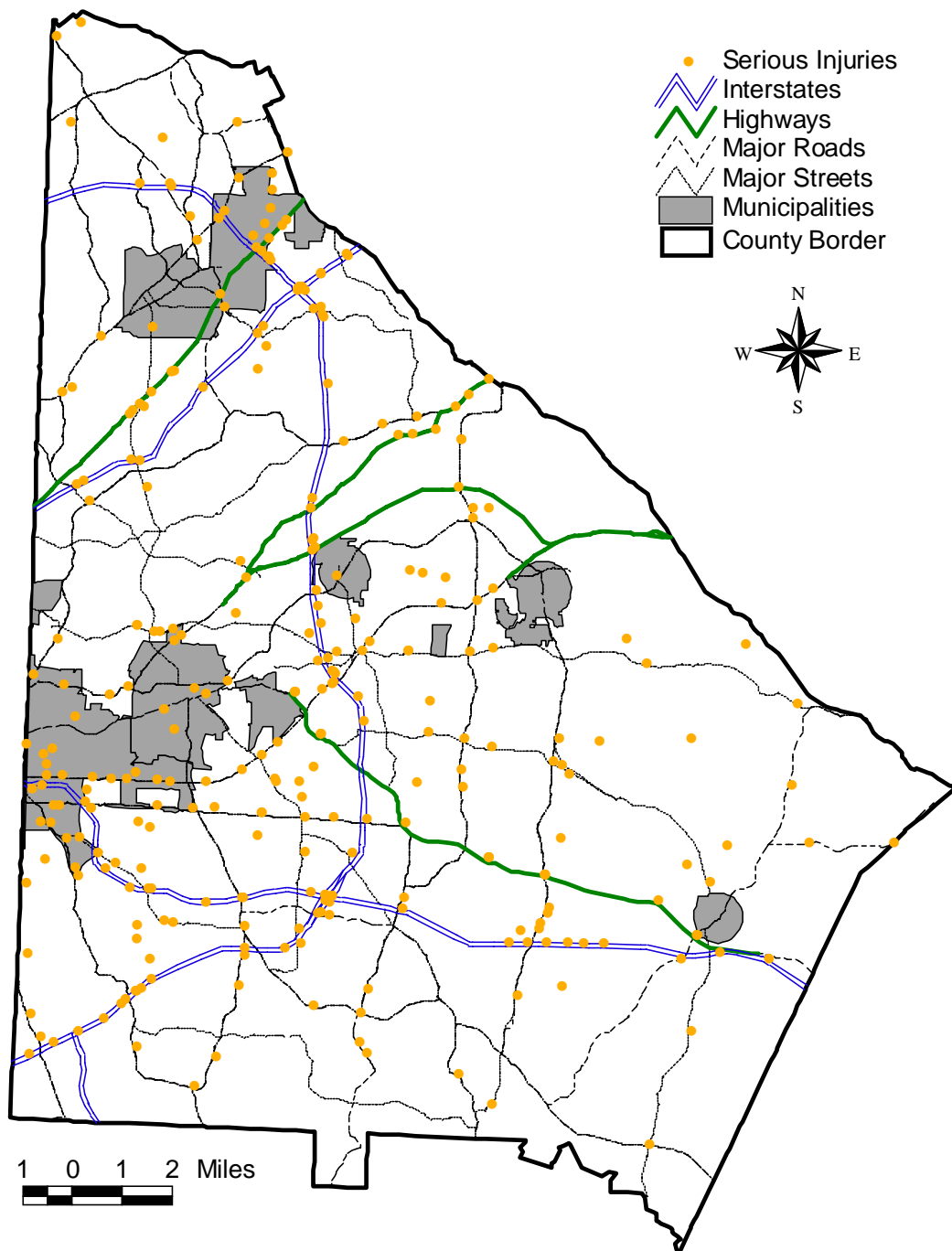
# Motor Vehicle Crash Fatalities DeKalb County, Georgia, 1997



Source: Dekalb County Board of Health

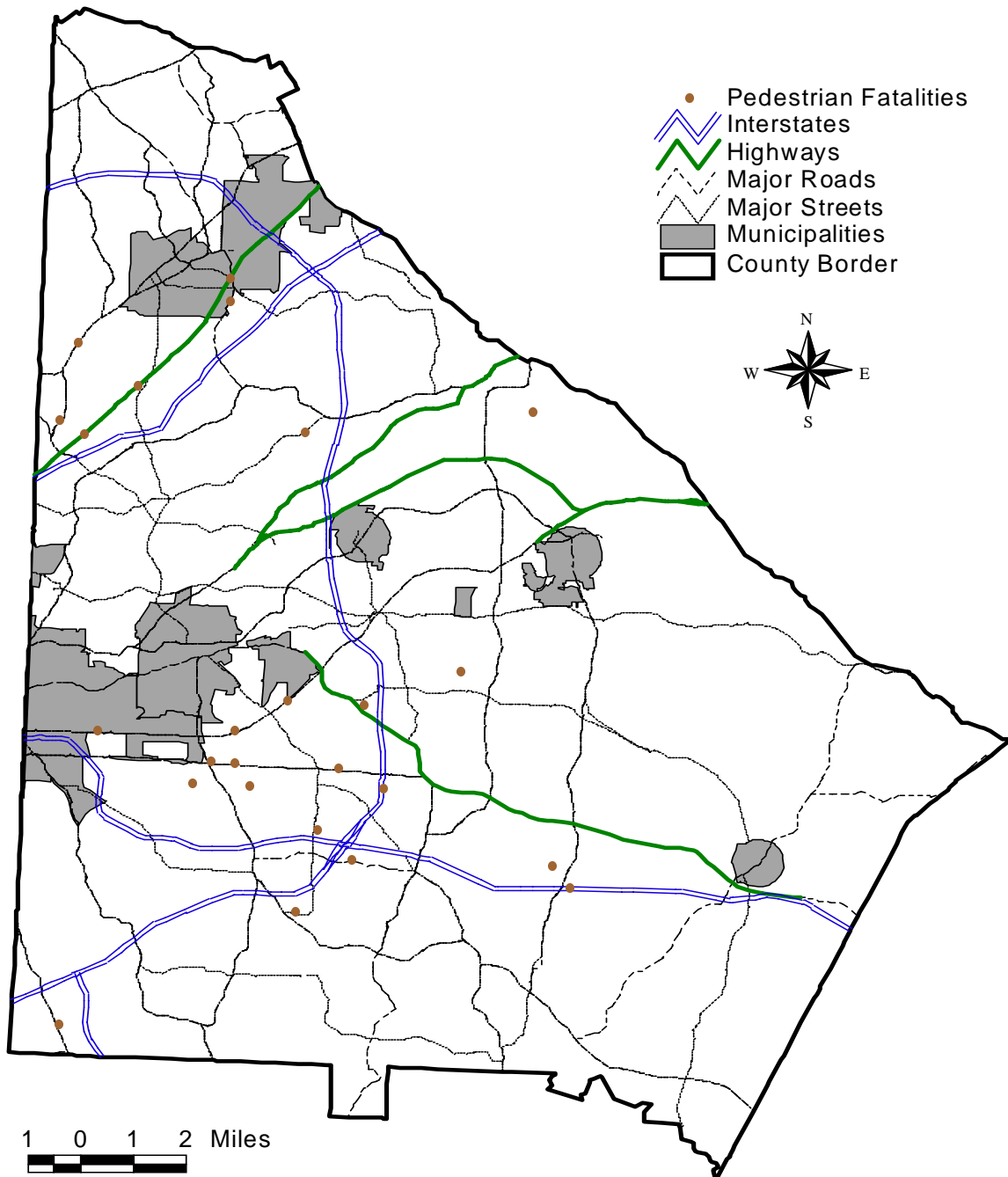


## Motor Vehicle Crashes Involving Serious Injuries DeKalb County, Georgia, 1997



Source: DeKalb County Board of Health

# Pedestrian Fatalities Dekalb County, Georgia, 1997



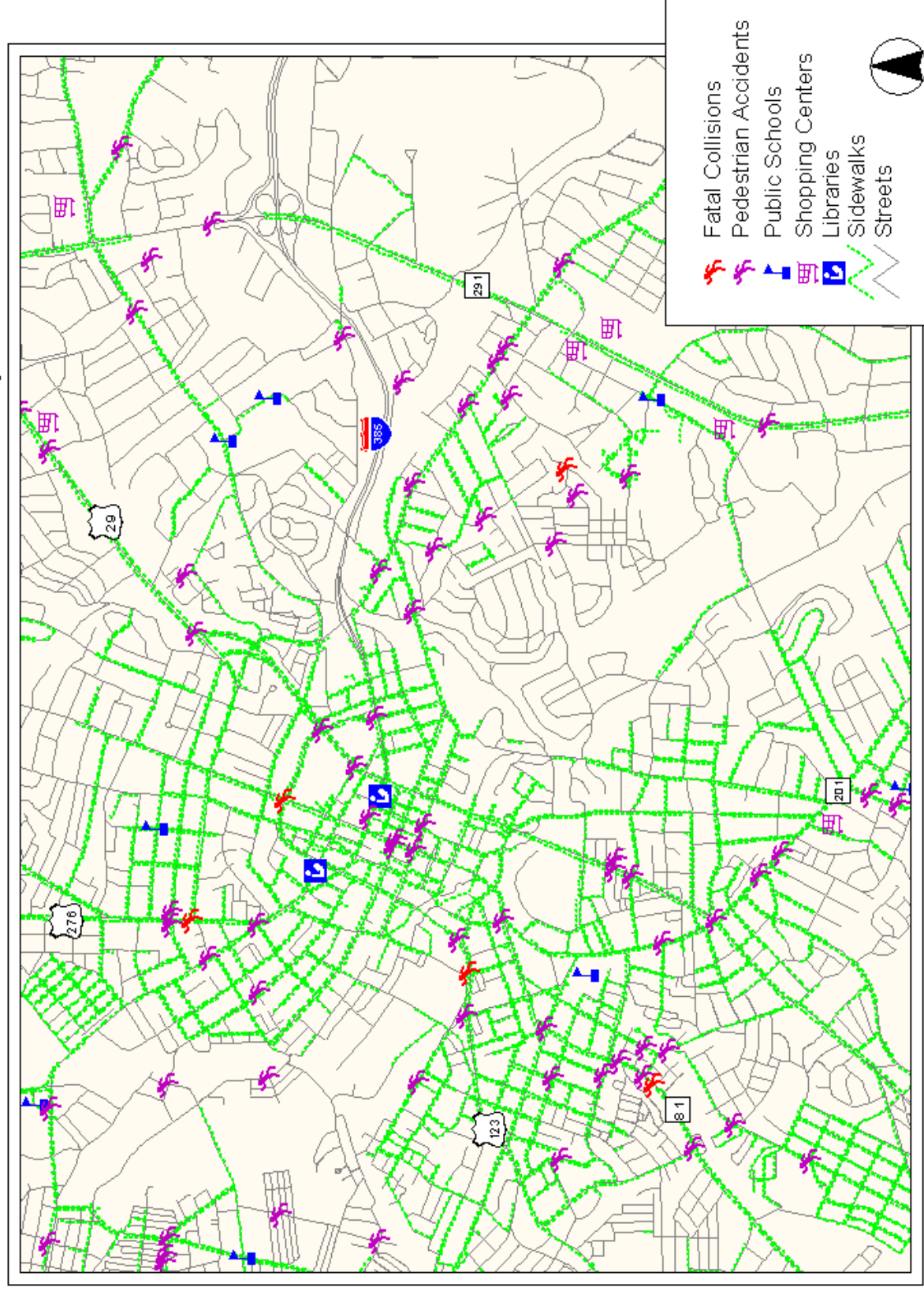
Source: Dekalb County Board of Health

## **How was this done?**

Each of three maps was produced similarly to placing pins into a roadmap for each event plotted. In this case, computer software (ArcView 3.2) was used to process the data. By using the computer to create this Geographical Information System (G.I.S.), we could get a more comprehensive picture of our injury and fatality problems. The maps show us the types of streets and locations of cluster of events. Initial map information involved placing layers of shapes on top of each other. The Department of Transportation was able to provide motor vehicle crash information geocoded (matched to the address) to the location of the event. By placing the layers together on the computer, a picture or map, of where the crashes were occurring was created.

Additional information on the creation of Geographical Information Systems can be found in the Journal of Public Health Management and Practice, July 1999, Volume 5, Number 4.

# Pedestrian Collisions 1997-1999: Greenville County, South Carolina



# Pedestrian Injury Mapping

## How was this done?

**Step 1:** Obtain traffic crash data from local law enforcement agencies or state Department of Public Safety.

**Step 2:** Using GIS, map crash locations to nearest intersection. Overlay crash locations with related features such as streets, sidewalks, schools, etc. Contact your local Planning Agency or GIS Department for assistance.

**Step 3:** Use overlays to identify major problem areas, such as areas with clusters of collisions or areas lacking sufficient pedestrian amenities (for example: sidewalks or crosswalks near schools or shopping centers).

## TRACKING YOUR PROGRESS

### Why do I need this?

Now that you've identified your community's "Big 3" injury problems, you should track them over time. There are two reasons why this is important: a) to evaluate the effectiveness of any interventions that have been implemented in your community during that time frame, and b) to observe any changes in injury patterns within a specific population or area. Indicators of injury trends and of program impact should relate back to the "Big 3" problems and the objectives of your interventions. For example, if your objective is to "decrease bicycle injuries by 10% among children aged 6-12," then you must monitor bicycle injuries within this age group annually to determine if any changes have occurred. Tracking doesn't require extensive data analysis. However, it is probably one of your most powerful tools in generating support among the media, the general public and stakeholders.

### What do I collect?

Collect the same data (for example, bicycle injuries in your county) over a series of time periods (a year is the most commonly used time period).

### How can I use it?

How do you measure your success? Community-wide observational surveys detect the presence or absence of a behavior (for example, use or nonuse of safety belts). Collect your baseline data and then repeat your data collection each year to track your progress. Limit your annual data collection efforts to the target populations and specific types of injuries addressed by your program. Publishing your results in the local newspaper is an effective way to provide this information to the community.

This simple tracking method does not allow you to state without a doubt that a decrease in injuries is solely due to the Safe Community intervention. Tracking injury trends allows you to measure the success of the entire community in addressing injury problems.

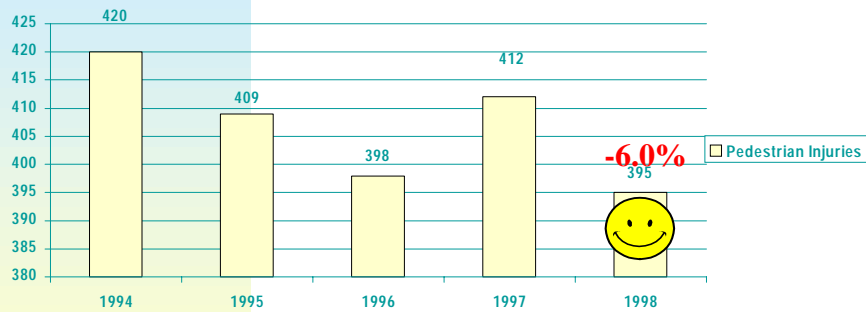
### What are my best sources?

- i Police Crash Report

# EXAMPLES

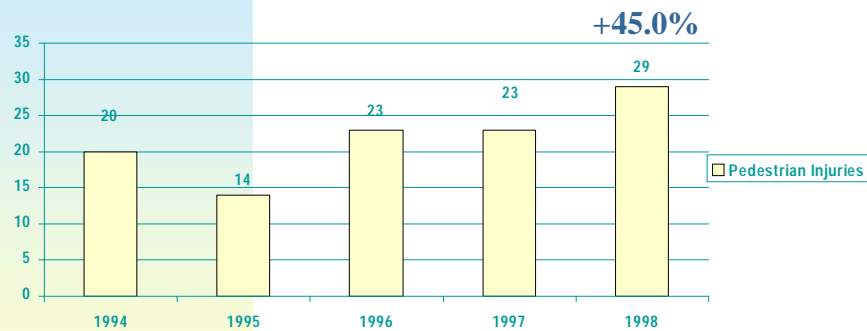
The following examples are included to provide you with ideas about how the trend data you have collected can be presented. These examples are not in any way intended to limit your own creativity when designing your own presentations. These are just a few of the many ways in which the data can be organized into effective and persuasive presentations. The examples included in this tool kit represent real data from real communities. For step-by-step instructions in creating charts from the automated templates, see the “Instructions and Comments” page.

## Duval County Pedestrian Injuries Involved with a Motor Vehicle Trend 1994-1998



Source: DHSMV (includes possible, non-incapacitating & incapacitating injuries)  
Reporting: DCHD/Injury Prevention Program

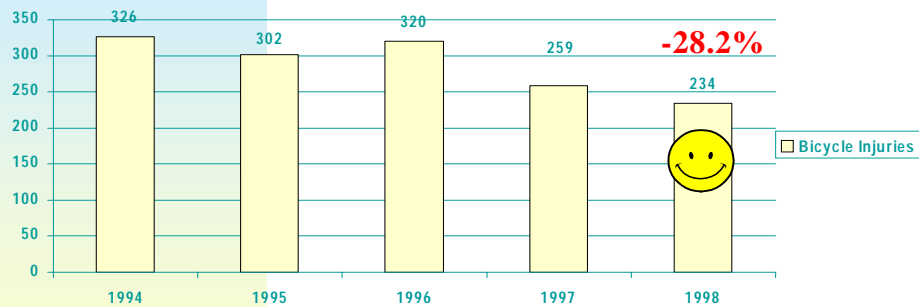
## Duval County Pedestrian Fatalities Involved with a Motor Vehicle Trend 1994-1998



Source: DHSMV  
Reporting: DCHD/Injury Prevention Program

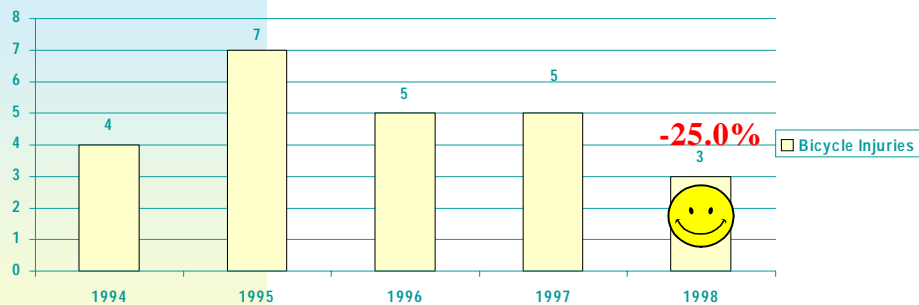


## Duval County Bicycle Injuries Involved with a Motor Vehicle Trend 1994-1998



Source: DHSMV (includes possible, non-incapacitating & incapacitating injuries)  
Reporting: DCHD/Injury Prevention Program

## Duval County Bicycle Fatalities Involved with a Motor Vehicle Trend 1994-1998

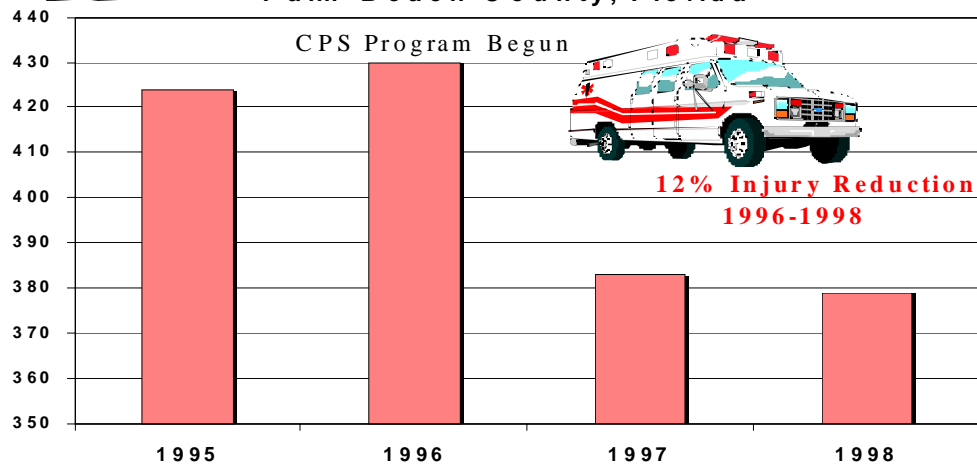


Source: DHSMV  
Reporting: DCHD/Injury Prevention Program

*Our Safe Communities Child Passenger Safety Program began in the Fall of 1996 and sponsored community lectures, multidisciplinary trainings, major media coverage, a toll-free hotline number for resources and information and county-wide child safety seat checks. This has resulted in a 12% reduction in pediatric transport injuries with a cost savings of \$1.7 million dollars!*



### Trends in Crash Injuries, Ages 0-4 Palm Beach County, Florida



Source: PBC Traffic Engineering

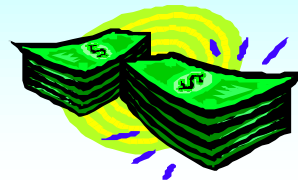
Safe Communities, PBC

### Palm Beach County Trends for Motor Vehicle Crashes, Ages 0-4

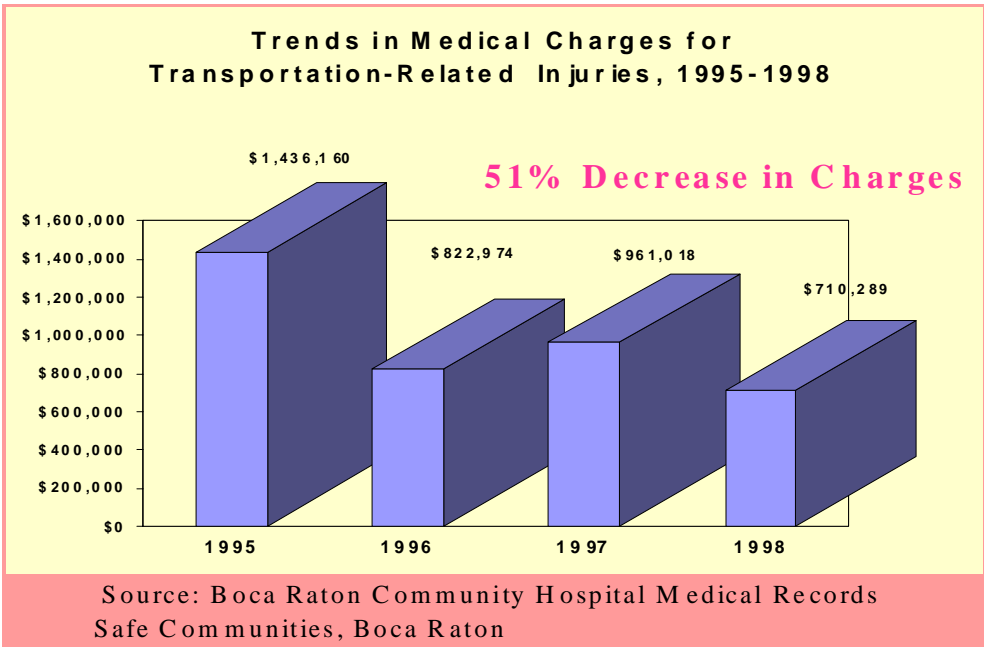
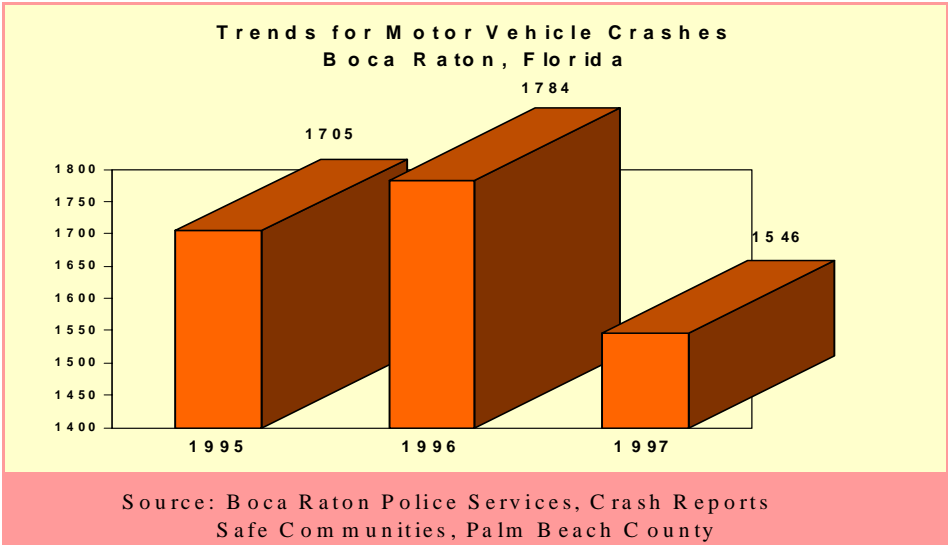
	Fatalities	Injuries	Cost *
1995	7	424	\$14,632,221
1996	6	430	\$13,946,223
1997	10	383	\$16,033,319
1998	6	378	\$12,966,235

The Child Passenger Safety Program has resulted in \$1,665,986 in cost savings for Palm Beach County

*Cost estimated using NHTSA Crash Cost Software Program*

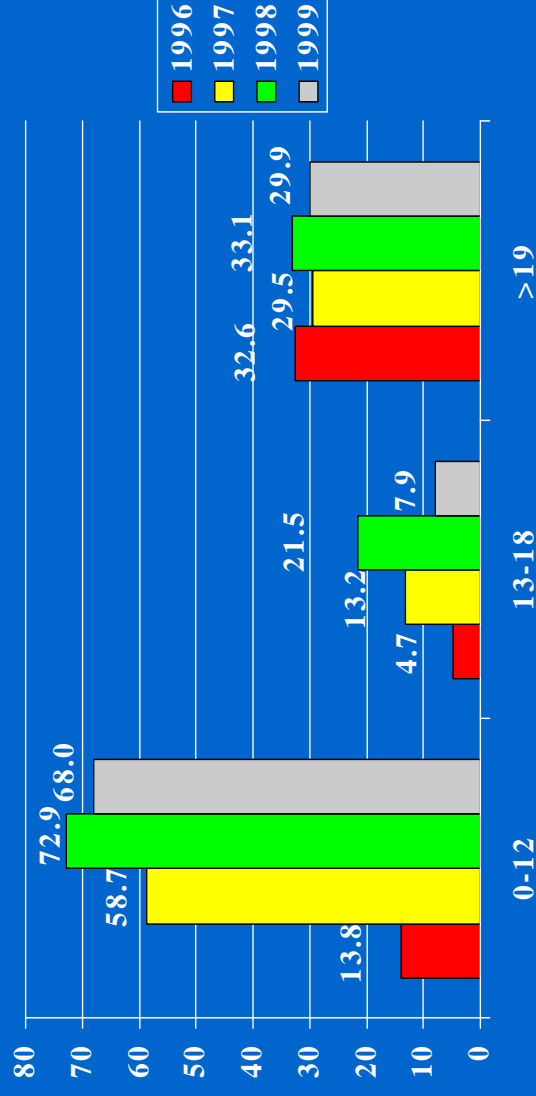


In Boca Raton, crash rates are down as well as medical charges...



# Milestone: **Helmet Usage**

## 1996 - 1999 Duval County Bicycle Helmet Usage Rate Comparison by Age



Source: 1996-99 Duval County Bike Observational Studies  
Reporting: DCHD/Injury Prevention Program

# OBSERVATIONAL SURVEYS

## Why do I need this?

Observational surveys are conducted to gather baseline data on safety belt usage, bicycle helmet usage and occupant restraint usage. It is strongly recommended that you conduct safety belt surveys to gather information on the use of safety belts in your community. Nonuse of safety belts is an important contributing factor to motor vehicle injury. Bicycle helmet usage surveys can also be performed in your community if you have found bicycle injuries to be one of the “Big 3” injuries in your community. Finally, if you want to conduct child safety restraint surveys in your community seek the assistance of a trained child safety technician.

## What do I collect?

This section includes the following surveys:

*Safety Belt (2)*  
*Bicycle Helmet Use*  
*Child Safety Restraint (2)*

## How can I use it?

The directions for each survey are given. There are two uses for this information; the first use is to establish a baseline of safety equipment usage. This allows you to appropriately target your intervention. The second use of this data is to track the effectiveness of your interventions annually. **“Did you make a difference?”**

## What are my best sources?

- <http://www.nhtsa.dot.gov> (Child Passenger Safety Link)
- American Automobile Association

## Safety Belt Surveys

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Getting a baseline survey of your community's safety belt use rate is the first step in determining the effectiveness of any safety belt use program and in understanding safety belt use as a contributing factor to non-fatal and fatal injuries. The following suggested steps are guidelines for undertaking a successful safety belt use observational survey.

1. Solicit volunteers to conduct the surveys. The following list should be considered just a starting place to look for volunteers:
  - Safe Community coalition members
  - traffic safety advocacy groups
  - church/religious groups
  - sororities/fraternities
  - colleges/universities
  - public health/medical institutions
  - minority advocacy groups
2. Conduct a survey to establish a baseline number so you can measure your progress and success.
3. Select locations for data collection near your proposed areas of enforcement or safety checkpoints. Observations should be focused on driver safety belt use from traffic corners with signals or stop signs. Include neighborhoods with minority populations. Repeated observations should duplicate each other in terms of exact location, day of week and time of day. This is necessary to provide comparable data.
4. The survey should be conducted during daylight hours and on weekdays and weekends. There is no "right" or "wrong" way to proceed, but you should observe at least 100 vehicles at a few locations in your community.
5. Assign staff or volunteers to serve as data collectors and instruct them on how to collect the data efficiently. Provide an ample supply of pens, pencils, forms, and clipboards. Decide if every car will be observed, or if a random selection will be used. Check "yes" or "no" on the safety belt survey form (provided).
6. Collect, tabulate and examine the data. Determine the percentage of drivers who were observed using a safety belt. This informal observational survey data can be used to evaluate a safety belt use program or to compare the current use rate in your community with safety belt use rates in other communities, the state or the nation.

# Safety Belt Survey

Survey Date: \_\_\_\_\_ Time: \_\_\_\_\_ AM / PM

Survey Location: \_\_\_\_\_

Name of Group Conducting Survey: \_\_\_\_\_

*Indicate a belted or unbelted driver by checking the appropriate block (YES or NO) that corresponds to the vehicle surveyed. Only observational surveys that visually count drivers wearing a safety belt will be accepted.*

## Driver Safety Belt Use

	YES	NO
1	_____	_____
2	_____	_____
3	_____	_____
4	_____	_____
5	_____	_____
6	_____	_____
7	_____	_____
8	_____	_____
9	_____	_____
10	_____	_____
11	_____	_____
12	_____	_____
13	_____	_____
14	_____	_____
15	_____	_____
16	_____	_____
17	_____	_____
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19	_____	_____
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21	_____	_____
22	_____	_____
23	_____	_____
24	_____	_____
25	_____	_____
26	_____	_____
27	_____	_____
28	_____	_____
29	_____	_____
30	_____	_____
31	_____	_____
32	_____	_____
33	_____	_____

## Driver Safety Belt Use

	YES	NO
34	_____	_____
35	_____	_____
36	_____	_____
37	_____	_____
38	_____	_____
39	_____	_____
40	_____	_____
41	_____	_____
42	_____	_____
43	_____	_____
44	_____	_____
45	_____	_____
46	_____	_____
47	_____	_____
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60	_____	_____
61	_____	_____
62	_____	_____
63	_____	_____
64	_____	_____
65	_____	_____
66	_____	_____

## Driver Safety Belt Use

	YES	NO
67	_____	_____
68	_____	_____
69	_____	_____
70	_____	_____
71	_____	_____
72	_____	_____
73	_____	_____
74	_____	_____
75	_____	_____
76	_____	_____
77	_____	_____
78	_____	_____
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94	_____	_____
95	_____	_____
96	_____	_____
97	_____	_____
98	_____	_____
99	_____	_____
100	_____	_____

# SAFETY BELT OBSERVATION FORM

OBSERVER: \_\_\_\_\_ LOCATION: \_\_\_\_\_  
 (STREET/CROSS STREET)

STRATUM \_\_\_\_\_ ID# \_\_\_\_\_ COUNTY: \_\_\_\_\_ SITE# \_\_\_\_\_

DIRECTION OF TRAFFIC FLOW: \_\_\_\_\_

DAY: \_\_\_\_\_  
 START: \_\_\_\_\_  
 END: \_\_\_\_\_

WEATHER CONDITIONS (CIRCLE ONE)  
 1 = CLEAR/SUNNY 4 = FOG  
 2 = LIGHT RAIN 5 = CLEAR BUT WET

DATE: \_\_\_\_\_ TOTAL NUMBER OF ELIGIBLE VEHICLES  
 PASSING DURING OBSERVATION: \_\_\_\_\_

NOTE: SITE LOCATION, DIRECTION OF TRAFFIC FLOW, DAY, START AND END TIME MUST BE FOLLOWED EXACTLY.  
 OBSERVER SHOULD CIRCLE DATE AND WEATHER, AND INDICATE TOTAL NUMBER OF ELIGIBLE VEHICLES.

## DRIVER

## PASSENGER

Vehicle #	Race 1 = W 2 = NW 9 = N/S	Sex 1 = M 2 = F 9 = N/S	Use 0 = No 1 = Yes 9 = N/S	Veh. Type 1 = Car 2 = Truck 3 = Van		Vehicle #	Race 1 = W 2 = NW 9 = N/S	Sex 1 = M 2 = F 9 = N/S	Use 0 = No 1 = Yes 9 = N/S
1.						1.			
2.						2.			
3.						3.			
4.						4.			
5.						5.			
6.						6.			
7.						7.			
8.						8.			
9.						9.			
10.						10.			
11.						11.			
12.						12.			
13.						13.			
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21.						21.			
22.						22.			
23.						23.			
24.						24.			
25.						25.			



## Bicycle Helmet Use Survey

A bicycle helmet observation session is the period of time when you are at one particular location observing bicyclists and coding (writing down) data about helmet use. For different locations, there are different guidelines. Below are general suggestions for conducting a bicycle helmet use observational survey, using the coding form provided.

1. Do not go onto school grounds to observe student bicyclists. Observe these riders on the main residential road leading to and from the school. Observe either in the morning or the afternoon at a school but not both. A morning observation session should be accomplished 20-30 minutes before classes begin. An afternoon observation session should begin at the time classes end for the day and continue until the students have left the school grounds.
2. Weekends may be the best times to observe bicyclists on bike trails, at parks and at beaches.
3. To avoid counting the same bicyclists twice, count cyclists going in the same direction counting from a fixed location. Concentrate on making a full and accurate entry for one cyclist at a time, even if you must miss collecting data on other bicyclists to do so.
4. Coding definitions:

**Date:** This is the month/day (March 8 or 3/8, for example) that you worked a particular observation site.

**Start Time, End Time:** These are the times you began and finished a particular observation session. Write down the times.

### **Weather Conditions When Observation Began:**

*Sunny* -- When there is hardly a cloud in the sky and the sun is shining bright and strong.

*Partly Cloudy* -- When there are a lot of clouds in the sky, but not so many as to completely block out the sun.

*Cloudy* -- When the clouds completely block out the sun, like when it is about to rain.

*Calm* -- When there is little to no wind blowing. Light breezes count as being calm.

*Windy* -- This can be anything from a fairly steady and strong breeze to an obviously strong and gusty wind.

**Estimated Temperature:** How hot or cool do you estimate it to be outside at the time you begin an observation session?

**Bike Lane Present:** If you are observing bicyclists riding on or near a standard residential street, and if that street has a clearly designated and marked bike lane, then put a check mark in this box. By “clearly designated and marked” we mean that roadway signs and/or roadway stripes indicate that one or the other shoulder of the road is reserved for bicyclists’ use.

**Wearing Helmet:** *This is the most important issue.* If the person is wearing a bicycle helmet, please put a check mark in this space. If not, then just leave this blank. Carrying a helmet does not count here. It must be on the person’s head.

**Helmet Properly Worn:** If the person wearing the helmet is wearing it properly, put a check mark in this space. If not, then just leave this blank. Look for gross, or really obvious examples of improper bike helmet use. Any finer distinction than that is not possible, since you will be trying to determine proper helmet use at a glance.

A cyclist IS wearing the helmet properly, if:

- The bike helmet appears at a glance to be sitting fairly level on the person’s head and the cyclist has fastened the chinstraps.
- That approximately a two-finger-width space of the cyclist’s forehead appears at a glance to be showing beneath the helmet.

A cyclist is *NOT* wearing the helmet properly, if:

- The helmet is obviously tilted to either the left or right side.
- The helmet’s chinstraps are not fastened (dangling free), or they are obviously loosely fastened.

**White, Black, Hispanic, Other:** This is a standard demographic question. Answer as best you can.

This next set of coding definitions applies **only** to standard, residential roads. For example, it would apply to schoolchildren you might be observing, but not to cyclists riding on a designed and recognized bike trail or on the beach.

**On Road:** Is the cyclist riding on a road, like a residential street near a school that might be your assigned observation site? If so, put a check mark here. If not, then you can just leave this blank.

**Bike Lane:** Is the cyclist riding in a designated bike lane to one side or the other of the road? If so, check; if not, leaves blank. The curb or road shoulder does not count as a bike lane. This entry is only for those parts of a road that a city, county or state government has purposely and clearly marked as a bike lane.

**Sidewalk:** Is the cyclist riding on the sidewalk? If so, check; if not, leave blank.

**Against Traffic:** Is the cyclist riding “against” vehicular traffic? If so, check mark; if not, leave blank. For example, if a road runs north and south, and say you observe a cyclist who is riding south in the northbound lane. That rider is going *against traffic* and would get a check mark here.

**Comments:** Use this section to make a quick note of anything you observed about a particular bicyclist, which is not covered by any of the coding-form entries. In particular, use this section to note whether a bicyclist is carrying a passenger, how that passenger is riding on the bike e.g., on the handlebars or in a child seat), and if that passenger is wearing a bike helmet.

### For Observing at Colleges and/or Universities

- Observe at colleges or universities either in the mornings (from 8-10 a.m.), or around noontime (11 a.m. -1 p.m.). Typically, it is in the mornings when the largest number of students arrives for classes, and it is around lunchtime that a sizable number of them leave campus.
- Observe bicyclists going in one direction only. For example, in the mornings, code only those cyclists you see arriving at campus; around the noon hour; code only those cyclists you see leaving campus.
- Observe bicyclists from a fixed location. For example, one of the main entrances to the campus might be good, as would any other entrance that, in your best judgment, will afford you the largest number of cyclists for your observation time.

Just as a reminder, a bicycle helmet is just that, a helmet. It is not a baseball cap or any other kind of hat kids wear for fashion. A bike helmet basically can be described as protective headgear for bicyclists that has a hard outer shell and a cushioned inner shell, and contains chin straps for fastening the helmet to the head.

In trying to determine if a cyclist is wearing his or her helmet properly, ask yourself:

- At a glance, does the helmet appear to be fairly level on the bicyclist’s head?
- At a glance, are the chinstraps fastened?
- At a glance, does it appear that about a two-finger-width space of the helmeted cyclist’s forehead is obviously visible beneath the helmet?

## BICYCLE HELMET USE &amp; BEHAVIOR SURVEY CODING FORM

County Code                      Observer's Name \_\_\_\_\_

Observation Site Code	Start Time	End Time
-----------------------	------------	----------

WC

Older Adult = 30+

Wearing Helmet	Proper	Gender	Race	Location	Against	Scan	Signal	Clothes (Bright)
Yes	Yes	Male	White	Road	Traffic	Yes	Yes	Yes
No	No	Female	Black	Bike Lane	Yes	No	No	No
			Hispanic	Sidewalk	No			
			Other					

## Child Safety Restraint Survey

It is important to conduct child safety restraint surveys to determine if children are being properly restrained while riding in motor vehicles. This is an important contributing factor for non-fatal and fatal injuries for children. The following guidelines will help you conduct child safety restraint observational surveys throughout your community.

1. Determine the age of the child. For coding purposes the following designations are usual: infants are considered to be one year of age or less; toddlers are considered to be 1-3 years old; children are considered to be 4-5 years old. Hints for determining ages of infants/toddlers/children: normally, only children under 20-22 pounds are in infant seats. These children are usually less than one year of age. Children over three years of age will probably not be holding a bottle. Booster seats will probably be used for children four years or older. Normally, five-year-olds are the youngest children in a lap/shoulder belt.
2. An infant seat is used for infants up to 20-22 pounds. The child is in a semi-reclining position. For proper use, the child faces the rear of the car. Harness straps fit over shoulders and are “snug”.
3. Convertible seats that can face to the rear or forward facing are often used by infants over 20-22 pounds until they have reached one year of age and then are placed forward facing until the child is 4 years of age and 40 pounds.
4. A booster seat is intended for older children at least 40 pounds. There are several varieties, some with harnesses, for use with children over 1 year of age and over 20 pounds up to 4 years and 40 pounds. Older children sit in booster seats and use the vehicle safety belts instead of the harness.
5. Children may legally ride in a vehicle secured by a lap/shoulder belt only if they are big enough for the belt to fit properly. For proper use, the shoulder belt should lie across the child’s chest. The lap belt should be securely in place over the hips. If the shoulder belt rides high over the child’s torso or face, it is being used improperly. Also, if the shoulder belt is behind the back, this is improper use.
6. For coding purposes, specify what type of restraint is being used, if any, and then specify if the restraint is misused. Misuse should be obvious. The most common types of misuse are wrong restraint for the age/weight of the child, restraint is altered in some way (behind the back, behind the headrest, etc.), child is facing the wrong way, and straps are not tightly secured.
7. Observe at day care centers, schools, playgrounds, parks, or other places where children must be transported in motor vehicles. Only code vehicles that are stopped or are moving very slowly. Coding occupants of cars that are moving rather quickly usually favors the ‘using belt’ category for safety belt surveys.

8. Code children under five years of age first if a combination safety belt/child restraint observational survey is being conducted. The order of priority is children under 5 in the front seat first, children under 5 in the rear seat second, and all other front seat passengers regardless of age last. Code as many children in each car as possible, if there are more than one.





# CHILD SAFETY SEAT OBSERVATION FORM

OS form p5

OBSERVER: \_\_\_\_\_ LOCATION: \_\_\_\_\_  
(CENTER NAME) (ADDRESS)

STRATUM: \_\_\_\_\_ ID# \_\_\_\_\_ COUNTY: \_\_\_\_\_ SITE # \_\_\_\_\_

0=DAYCARE/1=SHOPPING: \_\_\_\_\_ 0 \_\_\_\_\_

DAY: \_\_\_\_\_  
START: \_\_\_\_\_  
END: \_\_\_\_\_

WEATHER CONDITIONS (CIRCLE ONE)  
1 = CLEAR/SUNNY 4 = FOG  
2 = LIGHT RAIN 5 = CLEAR BUT WET

DATE: \_\_\_\_\_ TOTAL NUMBER OF ELIGIBLE VEHICLES  
PASSING DURING OBSERVATION: \_\_\_\_\_

NOTE: SITE LOCATION, DIRECTION OF TRAFFIC FLOW, DAY, START AND END TIME MUST BE FOLLOWED EXACTLY.  
OBSERVER SHOULD CIRCLE DATE AND WEATHER, AND INDICATE TOTAL NUMBER OF ELIGIBLE VEHICLES.

## CHILD UNDER FIVE

## DRIVER

Vehicle #	Use 0 = No 1 = Yes 9 = N/S	Seat 1 = Front 2 = Rear 9 = N/S		Vehicle #	Race 1 = W 2 = NW 9 = N/S	Sex 1 = M 2 = F 9 = N/S	Use 0 = No 1 = Yes 9 = N/S	Vehicle Type 1 = Car 2 = Truck 3 = Van
1.				1.				
2.				2.				
3.				3.				
4.				4.				
5.				5.				
6.				6.				
7.				7.				
8.				8.				
9.				9.				
10.				10.				
11.				11.				
12.				12.				
13.				13.				
14.				14.				
15.				15.				
16.				16.				
17.				17.				
18.				18.				
19.				19.				
20.				20.				
21.				21.				
22.				22.				
23.				23.				
24.				24.				
25.				25.				



## GLOSSARY OF TERMS

**Assessment:** the collection and organization of data from various sources that will guide planning and intervention efforts.

**Baseline:** any information used as a starting point for comparison purposes to determine any changes in the community associated with program efforts.

**Community Profile:** a method for collecting important identifying information such as the population, environment, business, culture and resources for a defined area.

**Countermeasure:** an injury prevention strategy; may be used singly or in combination with each other and may include public education and information, enforcement and legislative initiatives, engineering and technology, and economic incentives.

**E-code:** a standardized numbering system developed by the World Health Organization for the International Classification of Diseases (ICD) coding system; the number assigned to a specific cause of injury. The E-code indicates how an injury occurred.

**Injury:** intentional or unintentional damage to the body resulting from agents of energy transmission in a permissive environment exceeding tolerable limits for the host.

**Intentional Injuries:** Injuries that are purposefully inflicted either by persons to themselves or to others. Includes suicide, homicide, and assaults.

**Intervention:** a specific prevention measure, activity, or effort designed to meet a program objective.

**Template:** a generalized pattern used as a guide; may be used repeatedly.

**Timeframe:** a specific period of time used to collect or analyze data or to launch a program.

**Unintentional injuries:** injuries that are not inflicted on purpose.

**Years of Potential Life Lost (YPLL):** a measure calculated by subtracting a person's age at death from a predetermined life expectancy, usually age 65.

# RESOURCES

## Documents

Copies of the following publications can be ordered through the:  
Safe Communities Service Center, 819 Taylor Street, Rm 8A38, Fort Worth TX 76102  
Phone: 817.978.3653 Fax: 817.978.8339  
[Safe.Communities@nhtsa.dot.gov](mailto:Safe.Communities@nhtsa.dot.gov)

Are You Living in a Safe Community Sign-Up Card - 5P0249, 1999

It Wouldn't Hurt to Live in a Safe Community - 5P0003, 1996

Living in a Safe Community Doesn't Happen By Accident - 5P0004, 1996

Safe Communities Folios - 5P0026, 1999

Safe Communities: The First Six Months Handbook– 5P0276

Safe Communities 1999– Report to Congress– 5P0030

Injury Prevention: Meeting the Challenge, National Committee for Injury Prevention and Control, Oxford University Press, New York, 1989

### Folio Inserts Available Individually:

- Safe Communities– An Approach to Reduce Traffic Injuries– 5P0215
- Safe Communities Getting Started Overview– 5P0212
- Establishing a Self-Sufficient Safe Communities Program-5P0026
- Safe Communities– A Look at the Data-5P0214
- Evaluating & Monitoring Safe Communities Programs-5P0218
- Safe Communities– Tips for Coalition Building-5P0213
- Safe Communities– Working With Citizens to Set Priorities & Move Forward Fact Sheet– 5P0216

# RESOURCES

## Agencies

DOT's Bureau of Transportation Statistics

## Websites

Safe Communities Service Center: [Safe Communities@nhtsa.dot.gov](mailto:SafeCommunities@nhtsa.dot.gov)  
<http://www.nhtsa.dot.gov/safecommunities>

Building Safe Communities Newsletter - available at: [www.edc.org/HHD/csn/bsc/](http://www.edc.org/HHD/csn/bsc/)

WISQUARS-pronounced "whiskers" is the Centers for Disease Control and Prevention's (CDC) new Web-based Injury Statistics Query and Reporting System. It is an interactive system that provides injury-related mortality data and is available at: [www.cdc.gov/ncipc/wisqars](http://www.cdc.gov/ncipc/wisqars)

WONDER - (Wide ranging Online Data for Epidemiological Research) is similar to WISQARS's Injury Mortality Reports but has different characteristics. In addition to having a variety of data sources, its mortality data differs from WISQARS. It is available at: <http://wonder.cdc.gov/>

**Tool Kit CD's are available from the Regional Safe Communities Injury Control Program Manager.**

Region I - Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

Region II - New York, New Jersey, Puerto Rico, US Virgin Islands

Region III - Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia

Region IV - Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee

Region V - Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin

Region VI - Texas, Arkansas, Louisiana, Oklahoma, New Mexico, Indian Nations

Region VII - Iowa, Kansas, Missouri, Nebraska

Region VIII - Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming

Region IX - American Samoa, Arizona, California, Guam, Hawaii, Nevada, North Marianas

Region X - Alaska, Idaho, Oregon, Washington

## REFERENCES

Injuries Can Be Prevented. CSN National Injury and Violence Prevention Resource Center. <<http://www.edc.org/HHD/csn/ecodes/ecodefaq.html>> [2000, February 8].

McKenzie, J.F. & Pinger, R.R. (1997). An Introduction to Community Health: Web Enhanced Edition. London: Jones and Bartlett Publishers International.

National Highway Traffic Safety Administration. (1996). Getting Started: A Guide to Developing Safe Communities. (NHTSA Publication No. 1996-411- 724 / 50402). Washington, D.C: U.S. Government Printing Office.

U.S. Department of Health and Human Services. (1989). International Classification of Diseases, 9<sup>th</sup> Revision. Washington, D.C.: U.S. Government Printing Office.

Vira, C. (1999). The Data Smart Manual: Use and analysis of data for local highway and traffic safety programs. (DOT HS 808 862). Washington, D.C: U.S. Department of Transportation, National Highway Traffic Safety Administration.

## INSTRUCTIONS & COMMENTS

### AUTOMATED SAFE COMMUNITIES TOOL KIT TEMPLATES

1. Certain **CELLS** on each sheet are 'locked' or protected to prevent inadvertent overwriting of key formulas and/or formats. To unlock **CELLS**, chose **Protection** under the **Tools** menu and enter the password "safe" (in lower case letters). Re-protect sheet when done with this password or one of your own choosing.
2. Demographic Sheets: When **CELLS** are formatted as:

56789	56%	45678	37%
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this indicates that the computer program has compared these figures to the overall population figures entered on the first community profile worksheet, and has determined that this segment of the category population exceeds the percentage of the total population by 4% or more. You should look more closely at any demographic category that is highlighted in this way because it means that this segment of the population is over represented regarding this injury problem. It is recommended to wait until all numerical data is entered for each appropriate category, as percentages will change throughout the entry process.

3. The various sheets can be accessed using the "Arrow" icons at the lower left corner of the screen.
4. The various **CELLS** where numerical or text data are to be entered can be accessed using the **TAB** key, the **ARROW** key, or the mouse pointer.
5. The size of the sheet view on the monitor can be adjusted using the "% **SIZE**" adjustment box at the upper right hand corner of the screen.
6. Printout control can be accessed through **PAGE SET-UP** or **PAGE PREVIEW** under the **FILE** menu.

### CREATING CHARTS FROM YOUR DATA:

After filling in the template, you can start creating charts by clicking on the chart wizard icon on the top tool bar (this icon is a picture of a small, simple, colored bar chart). This icon is also available on the drop down menu under the heading "Insert." When you click on the chart wizard icon, EXCEL will walk you through the four steps necessary to create a chart. Step One allows you to choose your chart type. Step Two allows you to choose what data to include in your chart. Step Three allows you to customize your chart. Step Four allows you to place your chart in a presentation.